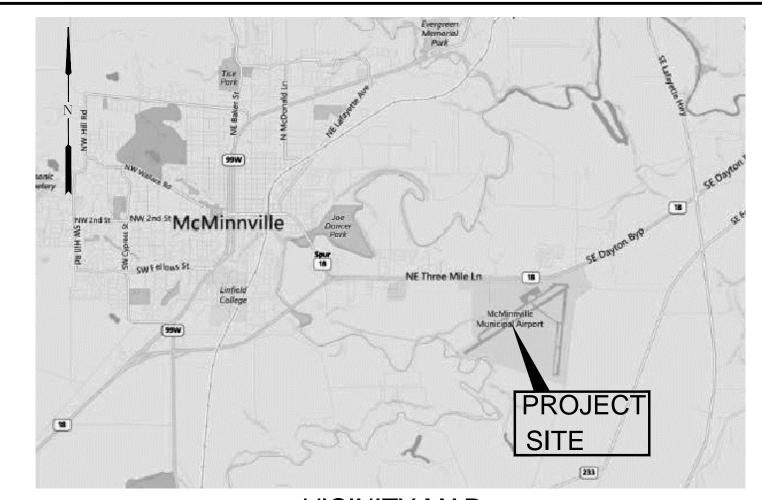


CITY OF MCMINNVILLE

MCMINNVILLE MUNICIPAL AIRPORT RUNWAY 4-22 REHABILITATION PROJECT APRIL 2016 A.I.P. NO. 3-41-0036-016 PROJECT NO. 2014-1



VICINITY MAP

PROPOSED

LEGEND

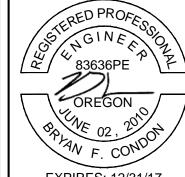
EXISTING

	EDGE OF PAVEMENT -	
	SAWCUT EXISTING PAVEMENT -	
	NEW PAVEMENT	
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3060 ———	CONTOUR MAJOR -	3060
	RUNWAY OBJECT FREE ZONE	OFZ
	RUNWAY SAFETY AREA	RSA
	SURVEY CONTROL	
	FAA OWNED EQUIPMENT	*
© ^{C-7} or T-2	GEOTECHNICAL TEST	
———Е———Е——	ELECTRICAL LINE -	— Е — Е —
V	ELECTRICAL VAULT	[V]
J	JUNCTION CAN	0
×	TAXIWAY EDGE LIGHT	-ф-в
Ø	RUNWAY THRESHOLD LIGHT	ф G/R /ф R/G
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	AREA DRAIN/CATCH BASIN	
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SD	STORM LINE (STS PIPE) -	STS
	CUT LINE -	сс
	FILL LINE —	FF
	DUCT BANK -	

SHEET INDEX

SHT NO.	DWG NO.	TITLE	SHT NO.	DWG NO.	TITLE	SHT NO.	DWG NO.	TITLE
1	(G-1)	COVER SHEET	40	(C-30)	RUNWAY 17-35 INTERSECTION PAVING PLAN	79	(E-17)	RUNWAY LIGHTING CONTROL LOOP DIAGRAM
2	(G-2)	SITE AND SURVEY CONTROL PLAN	41	(C-31)	TYPICAL SECTIONS I	80	(E-18)	MISCELLANEOUS ELECTRICAL DETAILS
3	(G-3)	SITE WORK AREA AND SAFETY PLAN INDEX SHEET	42	(C-32)	TYPICAL SECTIONS II			
4	(G-4)	WORK AREA AND SAFETY PLAN NOTES AND DETAILS	43	(C-33)	PAVEMENT DETAILS			
5	(G-5)	WORK AREA 1 PLAN	44	(C-34)	RUNWAY 4-22 CROSS SECTIONS STA 10+00 TO STA 24+00			
6	(G-6)	WORK AREA 2 AND 3 PLAN	45	(C-35)	RUNWAY 4-22 CROSS SECTIONS STA 25+00 TO STA 39+00			
7	(G-7)	WORK AREA 4 AND 5 PLAN	46	(C-36)	RUNWAY 4-22 CROSS SECTIONS STA 40+00 TO STA 54+00			
8	(G-8)	RUNWAY 4-22 EROSION CONTROL PLAN STA 0+00 TO STA 46+00	47	(C-37)	RUNWAY 4-22 CROSS SECTIONS STA 55+00 TO STA 66+00			
9	(G-9)	RUNWAY 4-22 EROSION CONTROL PLAN STA 46+00 TO STA 67+00	48	(C-38)	STORM DRAINAGE PLAN STA 8+00 TO STA 19+00			
10	(G-10)	EROSION CONTROL PLAN NOTES AND DETAILS	49	(C-39)	STORM DRAINAGE PLAN STA 19+00 TO STA 28+00			
			50	(C-40)	STORM DRAINAGE PLAN STA 28+00 TO STA 40+50			
11	(C-1)	DEMOLITION PLAN STA 0+00 TO STA 19+00	51	(C-41)	STORM DRAINAGE PLAN STA 40+50 TO STA 54+00			
12	(C-2)	DEMOLITION PLAN STA 19+00 TO STA 38+00	52	(C-42)	STORM DRAINAGE PLAN TAXIWAY A2 AND TAXIWAY D			
13	(C-3)	DEMOLITION PLAN STA 38+00 TO STA 58+00	53	(C-43)	STORM DRAINAGE PLAN STA 54+00 TO STA 66+00			
14	(C-4)	DEMOLITION PLAN STA 58+00 TO STA 67+00	54	(C-44)	STORM DRAIN MANHOLE DETAILS			
15	(C-5)	CRACK REPAIR AND SEAL COAT PLAN	55	(C-45)	STORM DRAIN DETAILS			
16	(C-6)	RUNWAY 4-22 PLAN AND PROFILE STA 8+00 TO STA 18+50	56	(C-46)	UNDERDRAIN DETAILS			
17	(C-7)	RUNWAY 4-22 PLAN AND PROFILE STA 18+50 TO STA 28+00	57	(C-47)	PAVEMENT MARKING PLAN STA 0+00 TO STA 23+00			
18	(C-8)	RUNWAY 4-22 PLAN AND PROFILE STA 28+00 TO STA 38+00	58	(C-48)	PAVEMENT MARKING PLAN STA 23+00 TO STA 45+50			
19	(C-9)	RUNWAY 4-22 PLAN AND PROFILE STA 38+00 TO STA 47+00	59	(C-49)	PAVEMENT MARKING PLAN STA 45+50 TO STA 66+00			
20	(C-10)	RUNWAY 4-22 PLAN AND PROFILE STA 47+00 TO STA 57+50	60	(C-50)	PAVEMENT MARKING DETAILS I			
21	(C-11)	RUNWAY 4-22 PLAN AND PROFILE STA 57+50 TO STA 66+50	61	(C-51)	PAVEMENT MARKING DETAILS II			
22	(C-12)	RUNWAY 17-35 PLAN AND PROFILE STA 52+50 to STA 55+82	62	(C-52)	PAVEMENT MARKING DETAILS III			
23	(C-13)	TAXIWAY A4 PLAN AND PROFILE STA 1+00 TO STA 7+00						
24	(C-14)	TAXIWAY A3 PLAN AND PROFILE STA 1+00 TO STA 8+00	63	(E-1)	LIGHTING AND GUIDANCE SIGN PLAN RUNWAY 4-22 STA 9+00 TO STA 29+50			
25	(C-15)	TAXIWAY A2 PLAN AND PROFILE STA 1+00 TO STA 6+00	64	(E-2)	LIGHTING AND GUIDANCE SIGN PLAN RUNWAY 4-22 STA 29+50 TO STA 50+00			
26	(C-16)	TAXIWAY D PLAN AND PROFILE STA 1+00 TO STA 6+00	65	(E-3)	LIGHTING AND GUIDANCE SIGN PLAN RUNWAY 4-22 STA 50+00 TO STA 66+00			
27	(C-17)	TAXIWAY A1 PLAN AND PROFILE STA 3+00 TO STA 8+00	66	(E-4)	LIGHTING AND GUIDANCE SIGN PLAN TAXIWAY A4 AND TAXIWAY A3			
28	(C-18)	RUNWAY 4-22 PAVING AND GRADING PLAN STA 8+00 TO STA 18+50	67	(E-5)	LIGHTING AND GUIDANCE SIGN PLAN TAXIWAY A2 AND TAXIWAY D			
29	(C-19)	RUNWAY 4-22 PAVING AND GRADING PLAN STA 18+50 TO STA 28+00	68	(E-6)	LIGHTING AND GUIDANCE SIGN PLAN TAXIWAY A1 AND RUNWAY 17-35			
30	(C-20)	RUNWAY 4-22 PAVING AND GRADING PLAN STA 28+00 TO STA 38+00	69	(E-7)	LIGHTING DETAILS I			
31	(C-21)	RUNWAY 4-22 PAVING AND GRADING PLAN STA 38+00 TO STA 47+00	70	(E-8)	LIGHTING DETAILS II			
32	(C-22)	RUNWAY 4-22 PAVING AND GRADING PLAN STA 47+00 TO STA 57+50	71	(E-9)	GUIDANCE SIGN SCHEDULE			
33	(C-23)	RUNWAY 4-22 PAVING AND GRADING PLAN STA 57+50 TO STA 67+00	72	(E-10)	GUIDANCE SIGN DETAILS			
34	(C-24)	TAXIWAY A4 INTERSECTION PAVING PLAN	73	(E-11)	WINDCONE PLAN AND DETAILS			
35	(C-25)	TAXIWAY A3 INTERSECTION PAVING PLAN	74	(E-12)	PAPI LAYOUT PLAN			
36	(C-26)	TAXIWAY A2 INTERSECTION PAVING PLAN	75	(E-13)	RUNWAY 4 PAPI DETAILS			
37	(C-27)	TAXIWAY D INTERSECTION PAVING PLAN	76	(E-14)	RUNWAY 22 PAPI DETAILS			
38	(C-28)	TAXIWAY A1 INTERSECTION PAVING PLAN	77	(E-15)	ELECTRICAL ONE-LINE DIAGRAM AND ELECTRICAL ROOM LAYOUT			
39	(C-29)	RUNWAY 4-22 INTERSECTION PAVING PLAN STA 59+50 TO STA 66+50	78	(E-16)	RUNWAY LIGHTING LOOP DIAGRAM			





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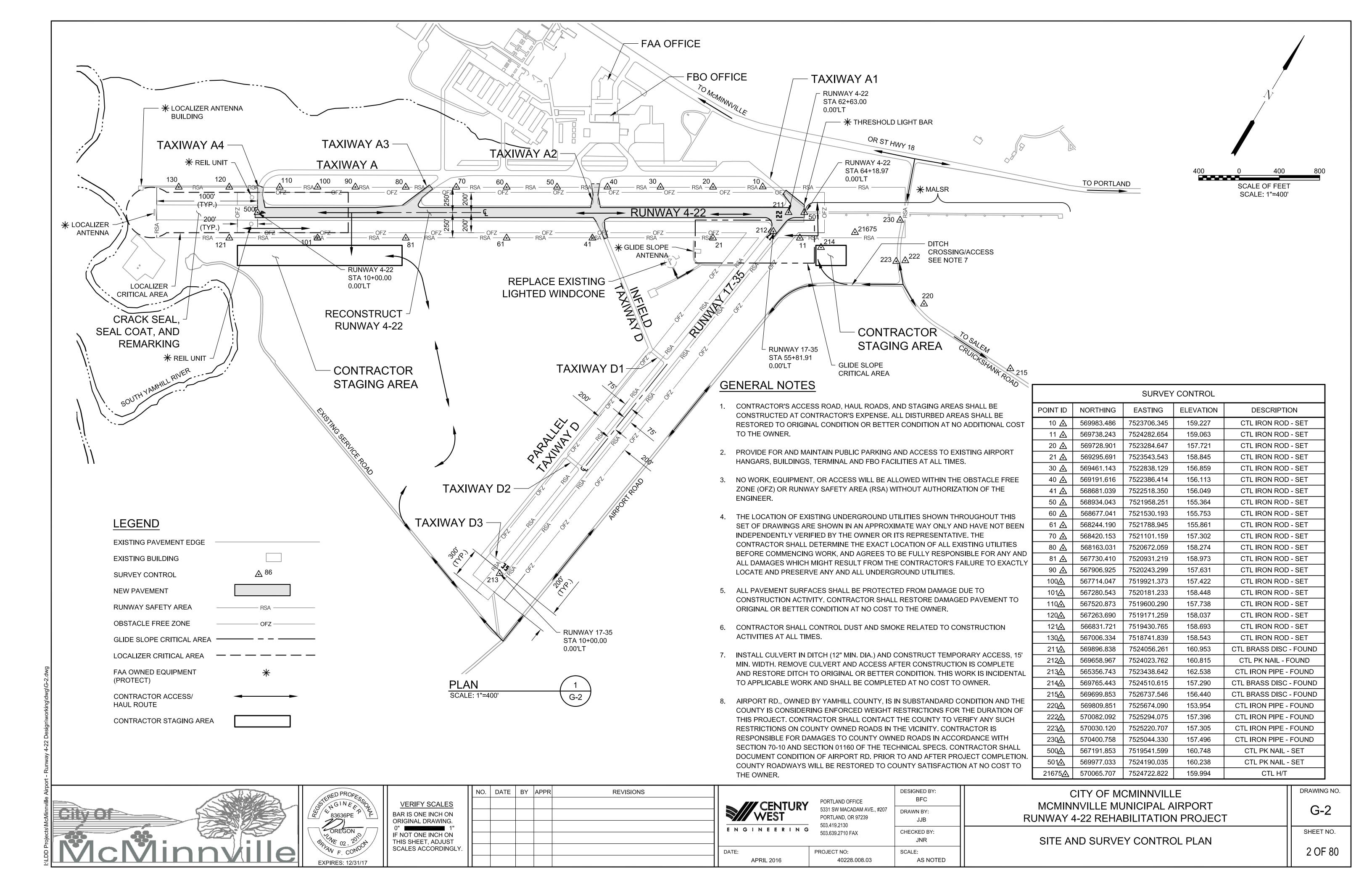
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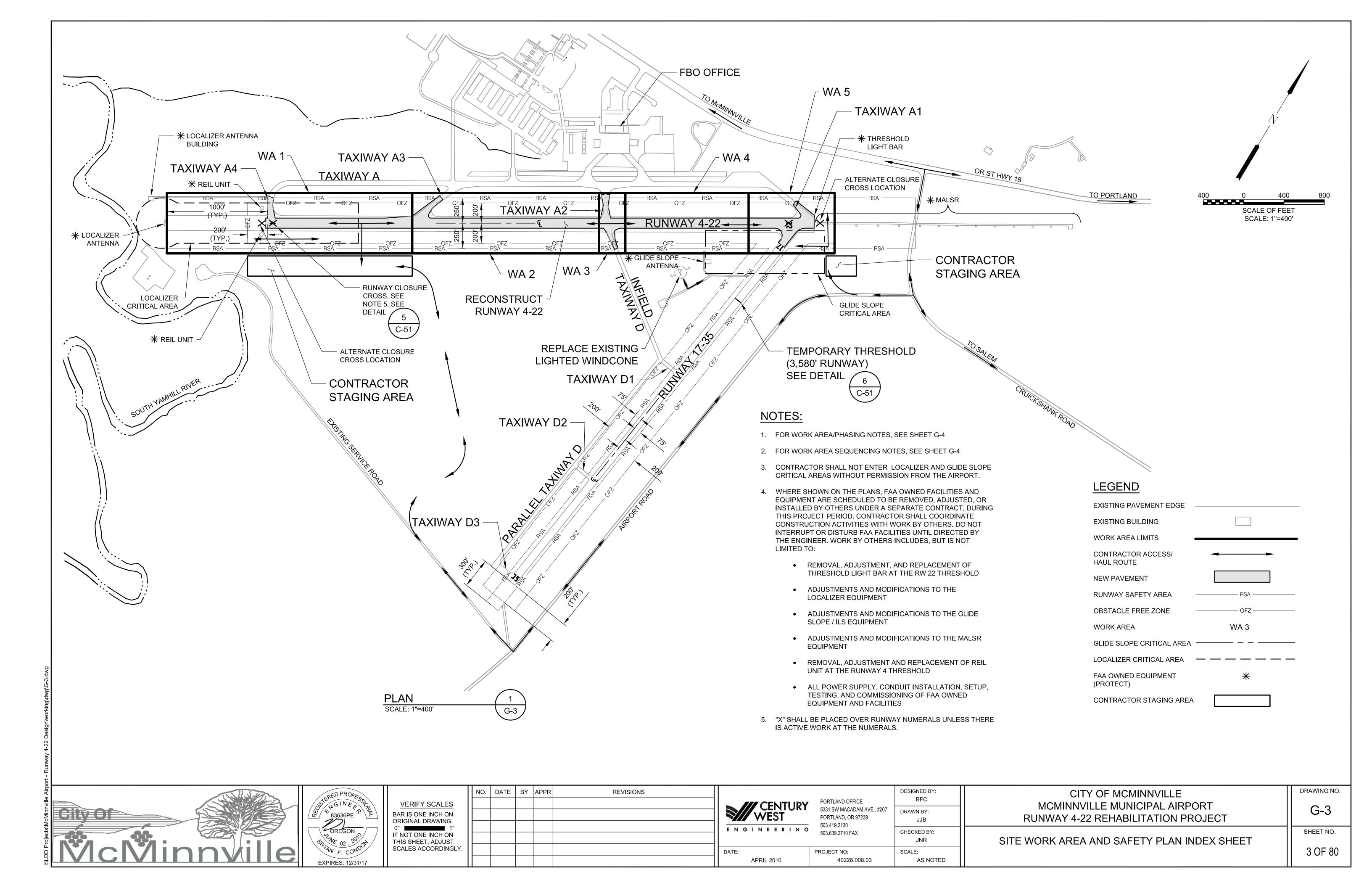
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CITY OF MCMINNVILLE
MCMINNVILLE MUNICIPAL AIRPORT
RUNWAY 4-22 REHABILITATION PROJECT

COVER SHEET NO. 1 OF 80

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GENERAL WORK AREA NOTES:

- THE CONTRACTOR SHALL BE RESTRICTED TO USE THE ENTRANCE AND HAULING ROUTES SHOWN ON THE DRAWINGS. FOLLOW AIRPORT AND FAA SAFETY PROCEDURES WHEN MOVING EQUIPMENT OR PERSONNEL. NO PERSONAL VEHICLES SHALL BE ALLOWED OUTSIDE OF THE STAGING AREA. THE AIRPORT MAY IMMEDIATELY REMOVE ANY PERSONNEL AND EQUIPMENT FROM THE SITE IN VIOLATION OF AIRPORT SAFETY AND SECURITY PROCEDURES.
- AVOID IMPACTS TO AIRFIELD LIGHTING AND PAVEMENTS OUTSIDE WORK AREA. PROVIDE TEMPORARY CONNECTIONS TO KEEP ELECTRICAL SYSTEMS ENERGIZED OUTSIDE OF THE WORK AREA AT NO COST TO AIRPORT.
- DISENGAGE LIGHTING CIRCUITS, DARKEN LIGHT FIXTURES, & COVER GUIDANCE SIGNS AS DIRECTED BY THE AIRPORT TO PREVENT AIRCRAFT FROM TAXIING TOWARDS CLOSED WORK AREAS.
- LIMIT EQUIPMENT HEIGHT TO 10 FEET UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- LIMIT STOCK PILES TO 10 FEET IN HEIGHT AND AT LEAST 400 FEET FROM ANY RUNWAY AND 65.5 FEET FROM TAXIWAY CENTERLINE.
- IN THE EVENT OF AN EMERGENCY, MOVE ALL EQUIPMENT AND PERSONNEL TO THE CONTRACTOR'S STAGING AREA UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- ACCESS TO ANY WORK AREA MUST BE AUTHORIZED BY THE ENGINEER PRIOR TO WORK IN THAT AREA. NOTIFY THE ENGINEER A MINIMUM OF 72 HOURS PRIOR TO BEGINNING WORK IN ANY AREA.
- PLACE CLOSURE CROSSES (X's) OVER RUNWAY NUMERALS DURING RUNWAY CLOSURES AS DIRECTED BY THE ENGINEER. SEE SECTION 01300 OF THE TECHNICAL SPECIFICATIONS.
- ANY WORK WITHIN 250 FEET OF THE RUNWAY 4-22 CENTERLINE OR WITHIN 1000 FEET OF RUNWAY END WILL REQUIRE A RUNWAY CLOSURE.
- ANY WORK WITHIN 200 FEET OF THE RUNWAY 17-35 CENTERLINE OR WITHIN 300 FEET OF THE RUNWAY END WILL REQUIRE A RUNWAY CLOSURE.
- 11. PLACE LOW LEVEL BARRICADES, BARRICADES, SAFETY FENCE, AND TUBULAR MARKERS AS SHOWN AND DESCRIBED IN SECTION 01300 OF THE SPECIFICATIONS.
- 12. ONE RUNWAY SHALL BE OPEN AT ALL TIMES.
- 13. RUNWAY CLOSURES AND NAVAID WORK WILL REQUIRE THE SHUTDOWN OF AIRPORT NAVAIDS AND FAA OWNED FACILITIES. THE CONTRACTOR IS REQUIRED TO NOTIFY THE ENGINEER OF ANY CLOSURE 45 CALENDAR DAYS IN ADVANCE OF THE
- 14. WHILE WORKING IN ANY AREA. THE CONTRACTOR SHALL HAVE AN AIRPORT RADIO CAPABLE OF MONITORING THE AIRPORT UNICOM FREQUENCY (123.00).
- 15. FOR ADDITIONAL REQUIREMENTS, REFER TO SECTION 01330, AIRPORT SAFETY. IN THE TECHNICAL SPECIFICATIONS.
- 16. WHERE SHOWN ON THE PLANS, FAA OWNED FACILITIES AND EQUIPMENT ARE SCHEDULED TO BE REMOVED, ADJUSTED, OR INSTALLED BY OTHERS UNDER A SEPARATE CONTRACT, DURING THIS PROJECT PERIOD. CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH WORK BY OTHERS. DO NOT INTERRUPT OR DISTURB FAA FACILITIES UNTIL DIRECTED BY THE ENGINEER. WORK BY OTHERS INCLUDES, BUT IS NOT LIMITED TO:
 - REMOVAL, ADJUSTMENT, AND REPLACEMENT OF THRESHOLD LIGHT BAR AT THE RW 22 THRESHOLD
 - ADJUSTMENTS AND MODIFICATIONS TO THE LOCALIZER **EQUIPMENT**
 - ADJUSTMENTS AND MODIFICATIONS TO THE GLIDE SLOPE / ILS EQUIPMENT
 - ADJUSTMENT AND MODIFICATIONS TO THE MALSR **EQUIPMENT** REMOVAL, ADJUSTMENT AND REPLACEMENT OR REIL UNIT
 - AT THE RUNWAY 4 THRESHOLD ALL POWER SUPPLY, CONDUIT INSTALLATION, SETUP, TESTING, AND COMMISSIONING OF FAA OWNED EQUIPMENT AND FACILITIES.
- 17. NO WORK IS ALLOWED DURING THE THREE DAY AIRPORT AIRSHOW. THE DATES OF THE AIRSHOW ARE YET TO BE DETERMINED BY THE AIRPORT.

WORK IN SAFETY AREAS AND OBJECT FREE AREAS:

- NO WORK IS ALLOWED IN ACTIVE RUNWAY AND TAXIWAY SAFETY AREAS. RUNWAY SAFETY AREA (RSA) AND TAXIWAY SAFETY AREA (TSA) ARE DEFINED AS AREAS THAT SHALL BE CLEARED AND GRADED AND HAVE NO RUTS, HUMPS, DEPRESSIONS, OR OTHER SURFACE VARIATIONS. THE MAXIMUM SLOPE ANYWHERE WITHIN A RUNWAY OR TAXIWAY SAFETY AREA SHALL BE 3%. IN TRANSITIONS FROM PAVED TO UNPAVED AREAS, A 3 INCH VERTICAL DROP IS ALLOWED. THE RUNWAY AND TAXIWAY SAFETY AREAS SHALL BE MAINTAINED AT ALL TIMES WHEN THE RUNWAY AND TAXIWAY IS OPEN TO AIR TRAFFIC, PERSONNEL, EQUIPMENT, OR MATERIAL WITHIN A RUNWAY SAFETY AREA AT ANY TIME REQUIRES A CLOSURE. SAFETY AREAS THAT ARE CLOSED FOR CONSTRUCTION MUST MEET THESE CRITERIA PRIOR TO REOPENING.
- THE CONTRACTOR SHALL ANTICIPATE THE CONSTRUCTION OF TEMPORARY FILLS, COMPACTION, AND GRADING TO MEET THE REQUIREMENTS OF "WORK IN SAFETY AREAS AND OBJECT FREE AREAS", PRIOR TO REOPENING RUNWAYS AND TAXIWAYS. THIS WORK IS CONSIDERED INCIDENTAL TO VARIOUS WORK ITEMS AND SEPARATE PAYMENT WILL NOT BE MADE.
- CONTRACTOR SHALL NOT ENTER ANY ACTIVE RSA OR TSA WITHOUT AUTHORIZATION FROM THE AIRPORT. ALL EQUIPMENT, TOOLS, AND MATERIALS SHALL BE MOVED TO STAGING AREAS PRIOR TO REOPENING A RUNWAY OR TAXIWAY.
- SAFETY AREA LIMITS

TAXIWAY - 39.5' FROM (RUNWAY 17-35 - 75' FROM **C**; 300' FROM THRESHOLD RUNWAY 4-22 - 250' FROM \$\overline{\pi}\$; 1000' FROM

THRESHOLD

- RUNWAY AND TAXIWAY OBJECT FREE ZONES ARE DEFINED AS AREAS THAT SHALL BE CLEAR OF FIXED OR MOVABLE OBJECTS. EQUIPMENT NOT IN USE, AND MATERIAL STOCKPILES AND STORAGE SHALL BE PLACED AT LEAST 400 FEET FROM ANY RUNWAY CENTERLINE. NO WORK MAY OCCUR IN TAXIWAY OBJECT FREE ZONES UNLESS THE TAXIWAY IS CLOSED TO AIRCRAFT TRAFFIC. NO STORAGE OF EQUIPMENT, MATERIALS OR STOCKPILES IS ALLOWED WITHIN TAXIWAY OBJECT FREE ZONES.
- **OBJECT FREE ZONE LIMITS**

RUNWAY 17-35 - 200' FROM € RUNWAY 4-22 - 200' FROM € - 65.5' FROM€ **TAXIWAYS**

RUNWAY AND TAXIWAY SAFETY AREA AND RUNWAY AND TAXIWAY OBJECT FREE ZONE CRITERIA MUST BOTH BE MET PRIOR TO OPENING AN IMPACTED RUNWAY OR TAXIWAY.

GENERAL WORK SCHEDULE NOTES:

- A 150 CALENDAR DAY PERIOD IS ALLOWED FOR ALL CONTRACT WORK ASSOCIATED WITH THE PROJECT, INCLUDING 1 COAT OF TEMPORARY RUNWAY MARKINGS (WITH GLASS BEADS) FOR EACH RUNWAY. BOTH RUNWAYS SHALL BE OPEN AND USABLE AT THE END OF THE 150 CALENDAR DAY PERIOD.
- WORK EXEMPT FROM COMPLETION WITHIN THE 150 CALENDAR DAY PERIOD INCLUDES FINAL APPLICATION OF PAINTED MARKINGS ON NEW PAVEMENT.
- WITHIN THE 150 CALENDAR DAY PERIOD, ONE PERIOD OF 45 CONTINUOUS CALENDAR DAYS IS ALLOWED FOR WORK AREA 5. THE FULL LENGTH OF RUNWAY 17-35 SHALL BE OPEN AND USABLE AT THE END OF THE 45 CALENDAR DAY PERIOD.
- AT ANY TIME DURING THE 150 CALENDAR DAY PERIOD NIGHT TIME WORK IS ALLOWED AT THE CONTRACTOR'S OPTION.

SEQUENCING AND PHASING NOTES:

- COORDINATE WORK AREA CLOSURES WITH THE AIRPORT TO ENSURE ACCESS AS NEEDED TO MAINTAIN AIRPORT OPERATIONS, INCLUDING PROVIDING FOR AND MAINTAINING ACCESS TO THE FOLLOWING:
 - ACCESS TO THE APRON AREA
 - ACCESS TO THE FBO RAMP
- WORK IN WA 1, 2, 3, 4, AND 5 REQUIRES THE CLOSURE OF RW 4-22.
- WORK IN WA 5 REQUIRES A SHORTENED RW 17-35, AND USE OF A TEMPORARY THRESHOLD FOR THE RW 17 THRESHOLD (SEE C-51). RW 17 NUMERAL MARKING TO BE COVERED (SEE C-4) AND THRESHOLD BAR/ARROW HEADS TO BE ELIMINATED AT THE TIME OF RW 17 THRESHOLD DISPLACEMENT.
- WORK IN WA 3 AND WA 5 MAY NOT OCCUR CONCURRENTLY.
- ALL WORK, MEN AND EQUIPMENT WITHIN WA 2, 3, AND 4 MUST REMAIN WITHIN EXISTING PAVEMENT LIMITS PRIOR TO AUGUST 15.
- WORK WITHIN WA 5 MAY NOT BEGIN UNTIL AUGUST 15.

WINDCONE PHASING, ACCESS, AND **SEQUENCING NOTES:**

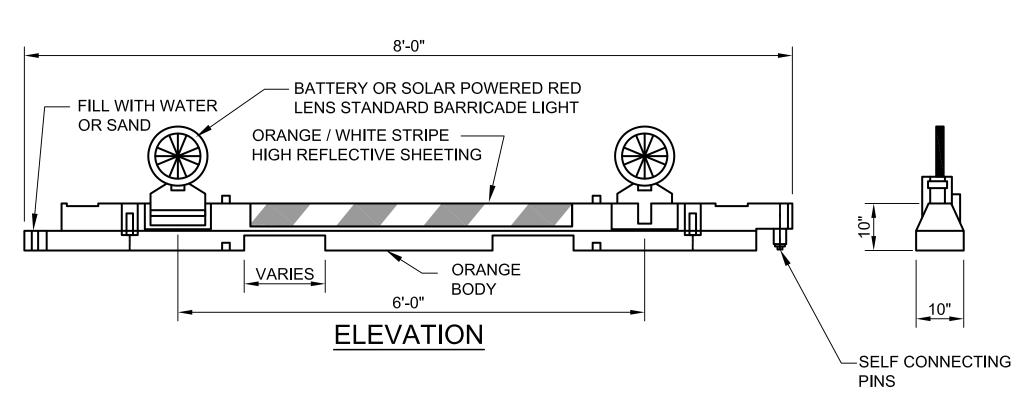
- COORDINATE ACCESS TO WINDCONE THROUGH THE ENGINEER. ESCORT OR PERMISSION FROM AIRPORT IS REQUIRED PRIOR TO ACCESS TO THIS WORK AREA.
- THE WINDCONE SHALL BE FULLY OPERATIONAL FOR THE DURATION OF THE PROJECT EXCEPT FOR 10 CALENDAR DAYS ALLOWED FOR WINDCONE REPLACEMENT.
- CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS PRIOR TO WINDCONE SHUTDOWN.

ACCESS FENCE FROM PAVEMENT **EDGE OF EXISTING** (TYP.) **PAVEMENT** FENCE POST (TYP.) **PLAN ORANGE MESH** FENCE POST, DRIVE TO 18"± CONSTRUCTION FENCE WITH **SECURE MESH TO** DEPTH, 8' MAX. SPACING POSTS ON 8' MAX. SPACING POST WITH NYLON ZIP (TYP.) TIES AT 3 LOCATIONS (TYP.) **GROUND ELEVATION ELEVATION**

NOTES:

- INSTALL SAFETY ORANGE MESH CONSTRUCTION FENCE, PER THE PLANS, AT THE COMMENCEMENT OF THE PROJECT. FENCE TO BE MAINTAINED AND IN PLACE UNTIL AUGUST 15.
- 2. CONSTRUCT FENCE FROM EXISTING PAVEMENT SIDE, DO NOT APPROACH OR PERFORM FENCE WORK FROM SHOULDER SIDE.
- BEGIN FENCE WORK ONLY AFTER RECEIVING PERMISSION FROM THE ENGINEER AND AFTER THE OWNER HAS COMPLETED A WILDLIFE SURVEY.
- 4. USE CAUTION DURING FENCE CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF WILDLIFE IS ENCOUNTERED. STOP FENCE WORK UNTIL DIRECTED TO RESUME BY THE ENGINEER.





NOTES:

- 1. PLACE BARRICADE PER THE PLANS.
- 2. BARRICADES SHALL BE PROVIDED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING, FILLING, EMPTYING, MOVING, AND PROTECTING BARRICADES THROUGHOUT THE DURATION OF THE PROJECT.
- 3. IF CONTRACTOR USES SANDBAGS TO ANCHOR BARRICADES, USE "DOUBLE BAGS" OR OTHER MEASURES TO PREVENT SAND FROM LEAVING OR MIGRATING THROUGH BAG FABRIC.

LOW LEVEL BARRICADE DETAIL G-4





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APRIL 2016

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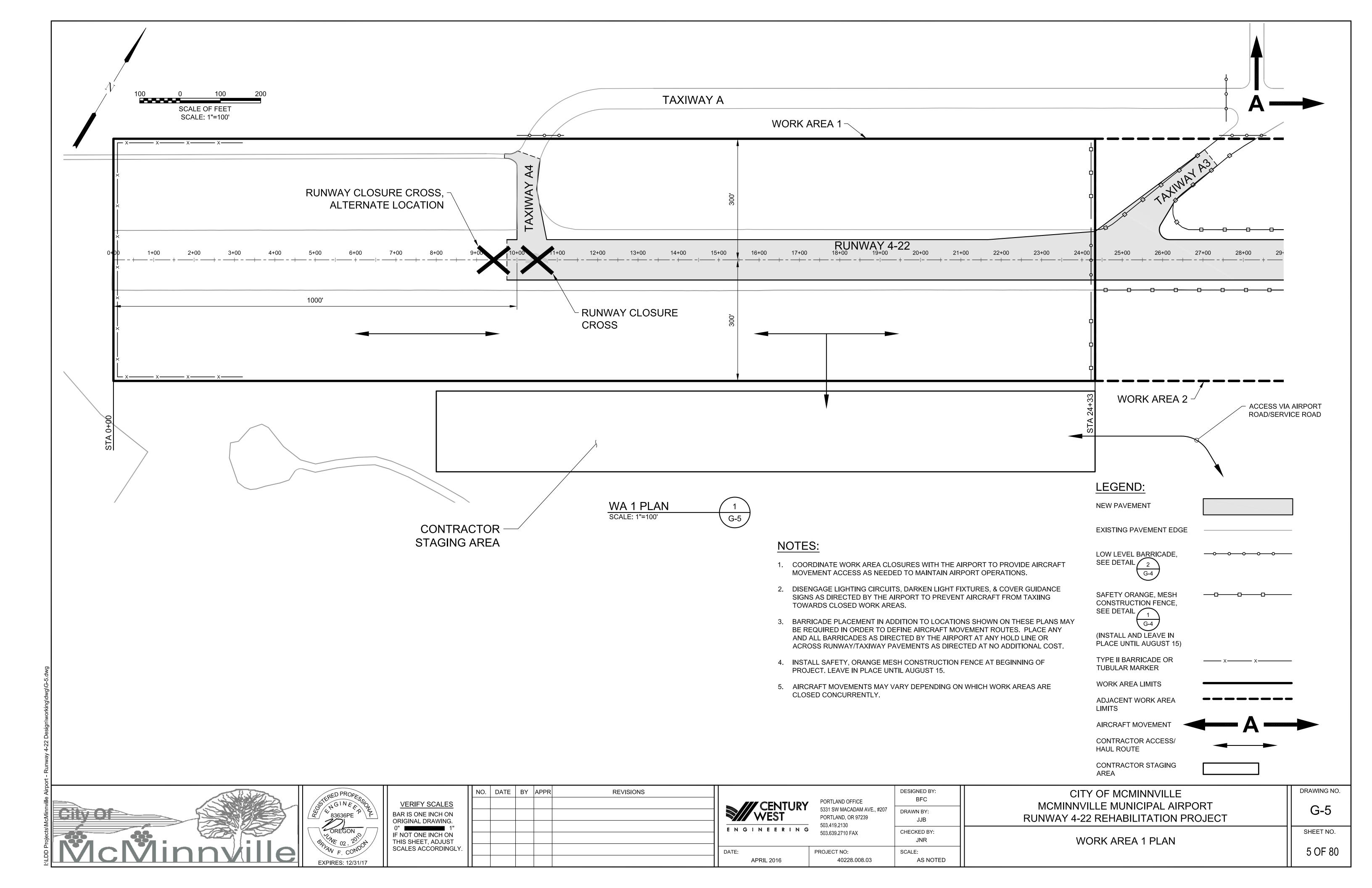
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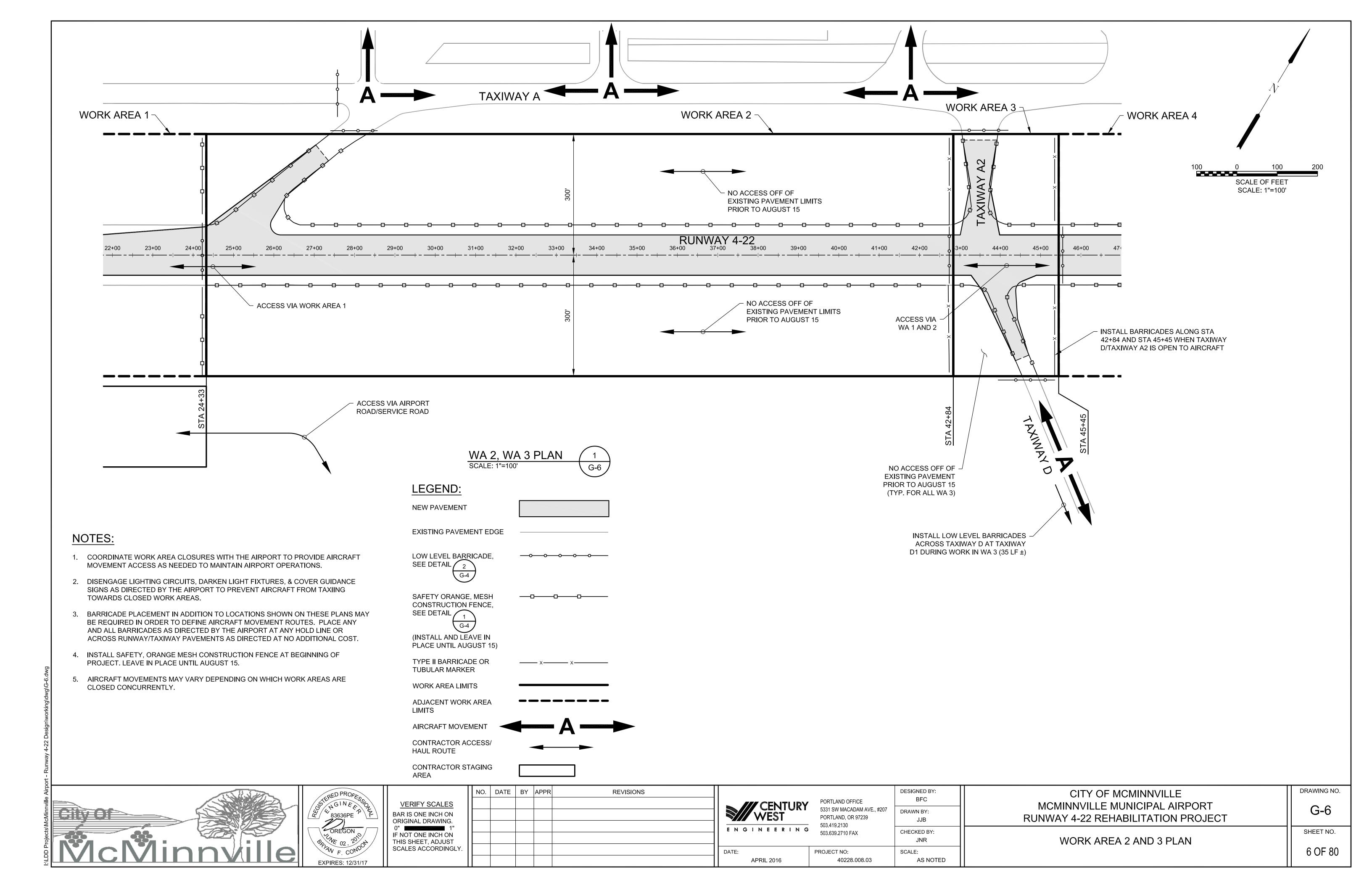
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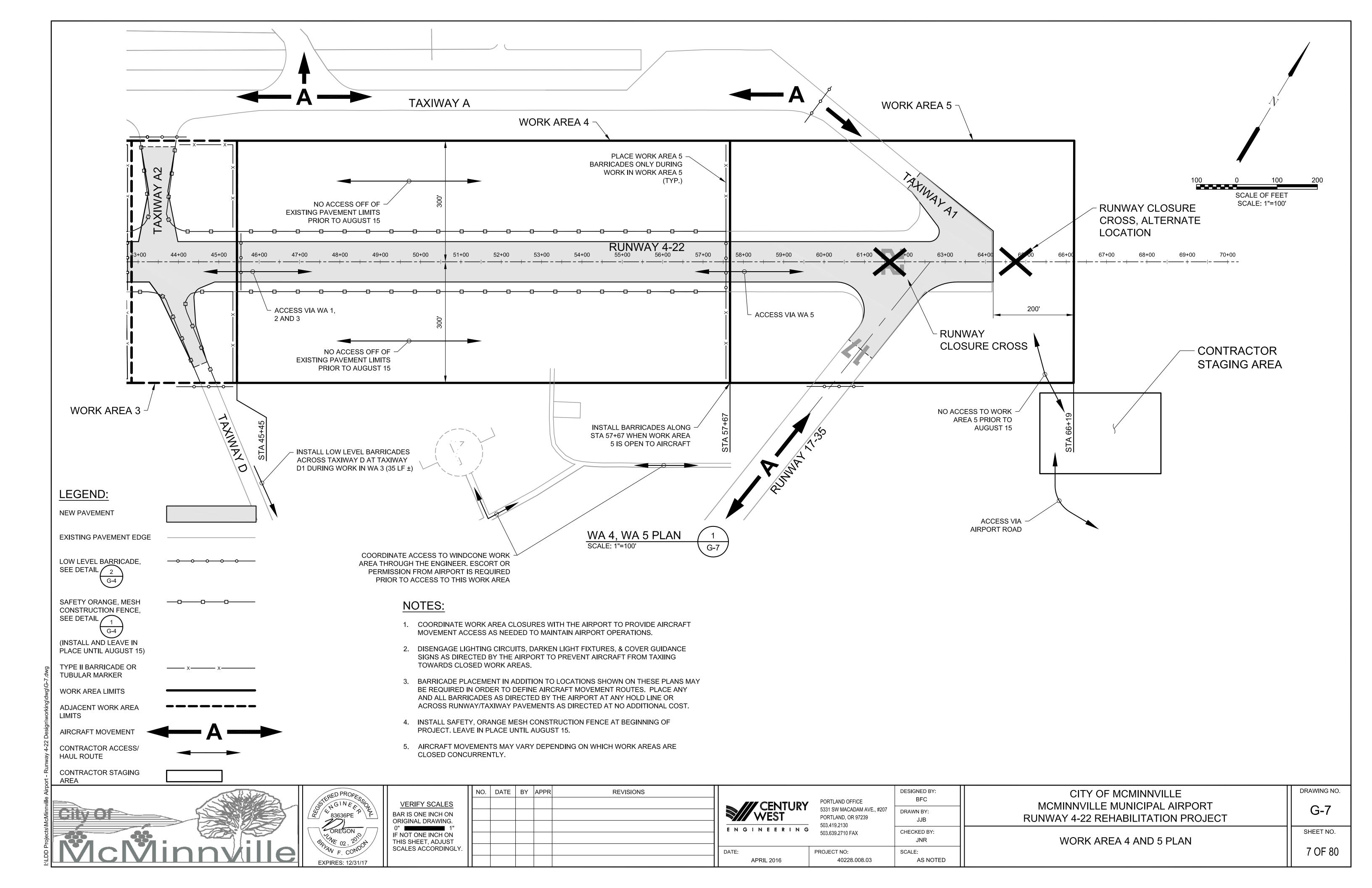
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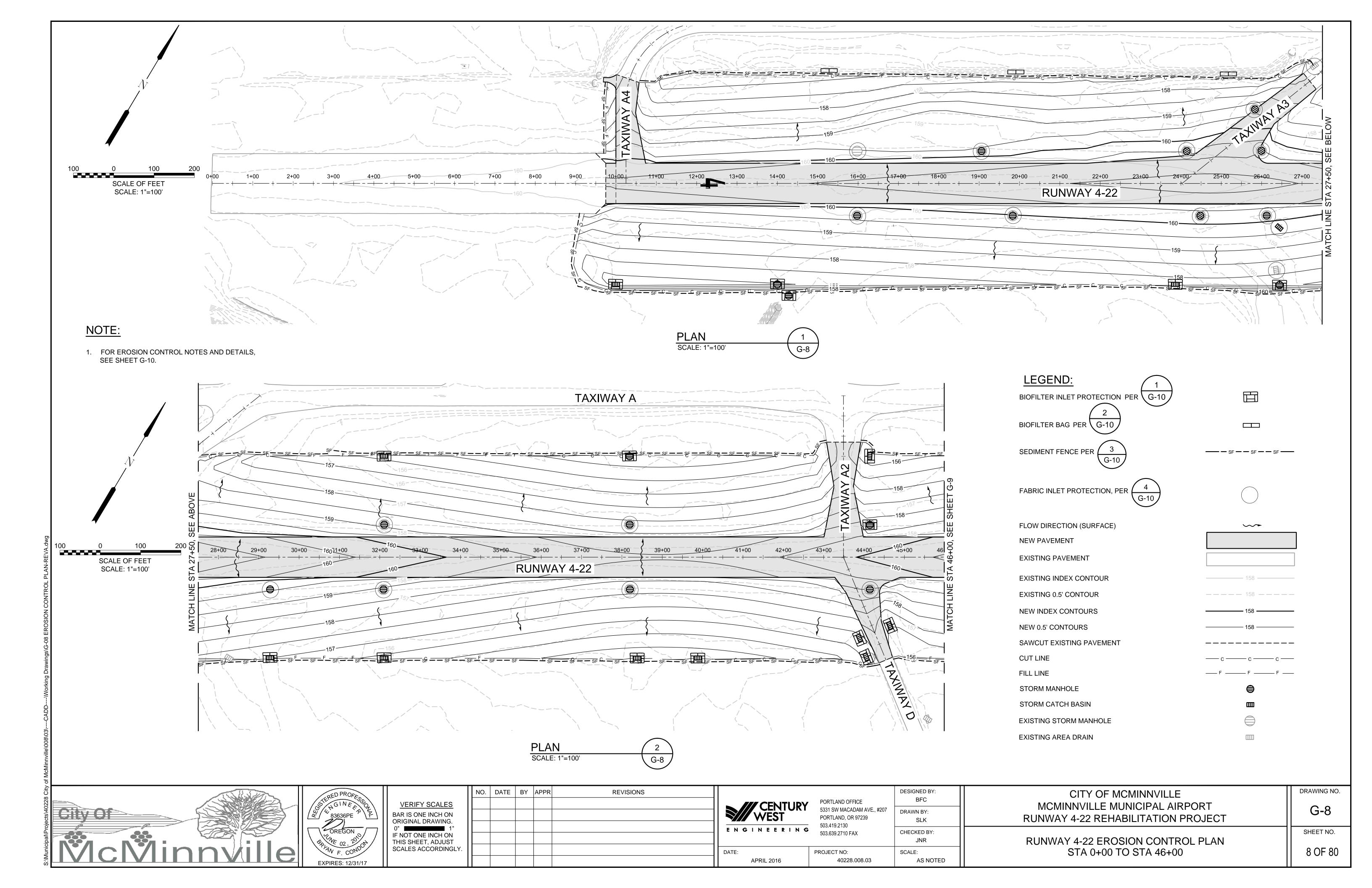
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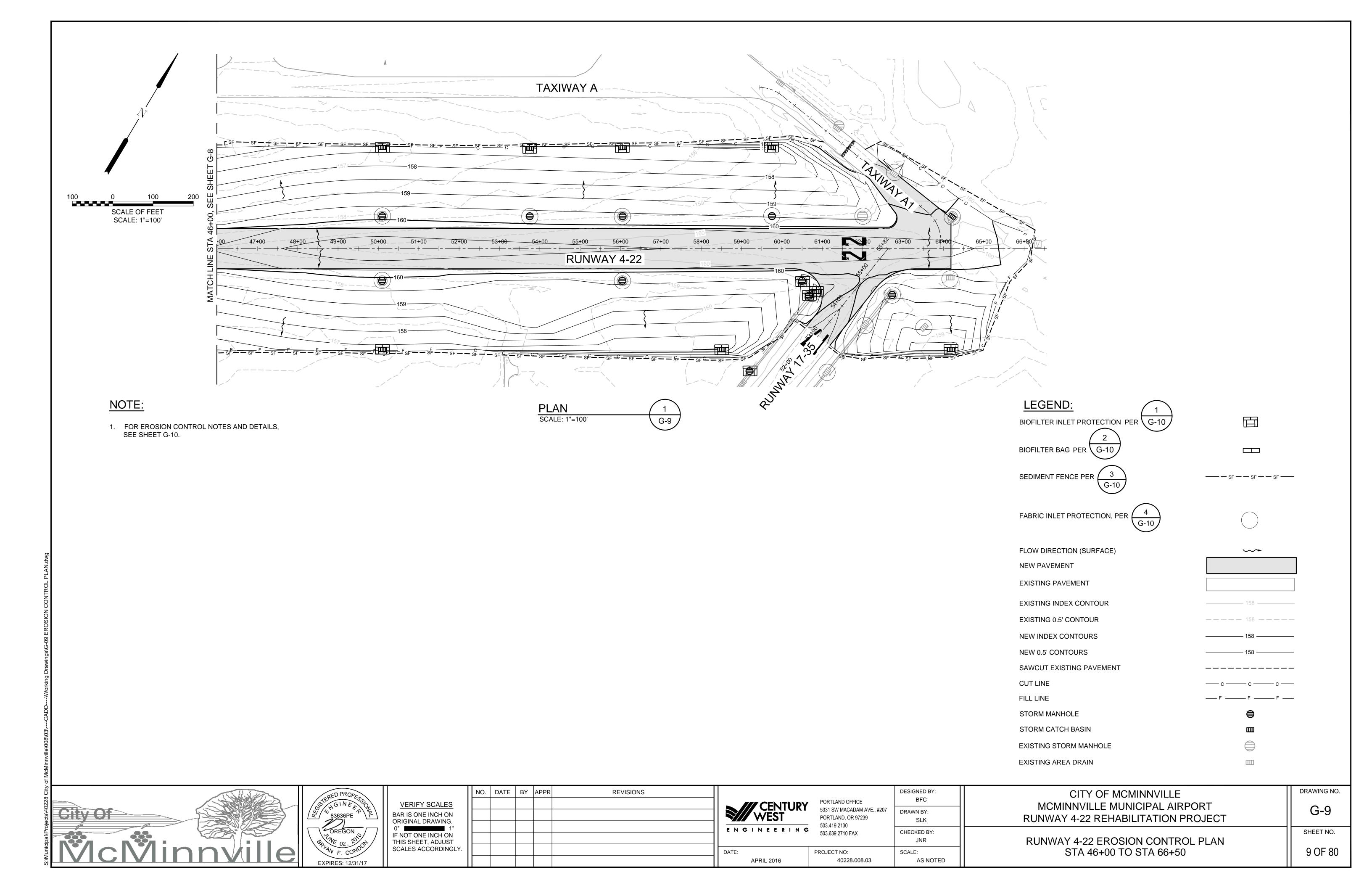
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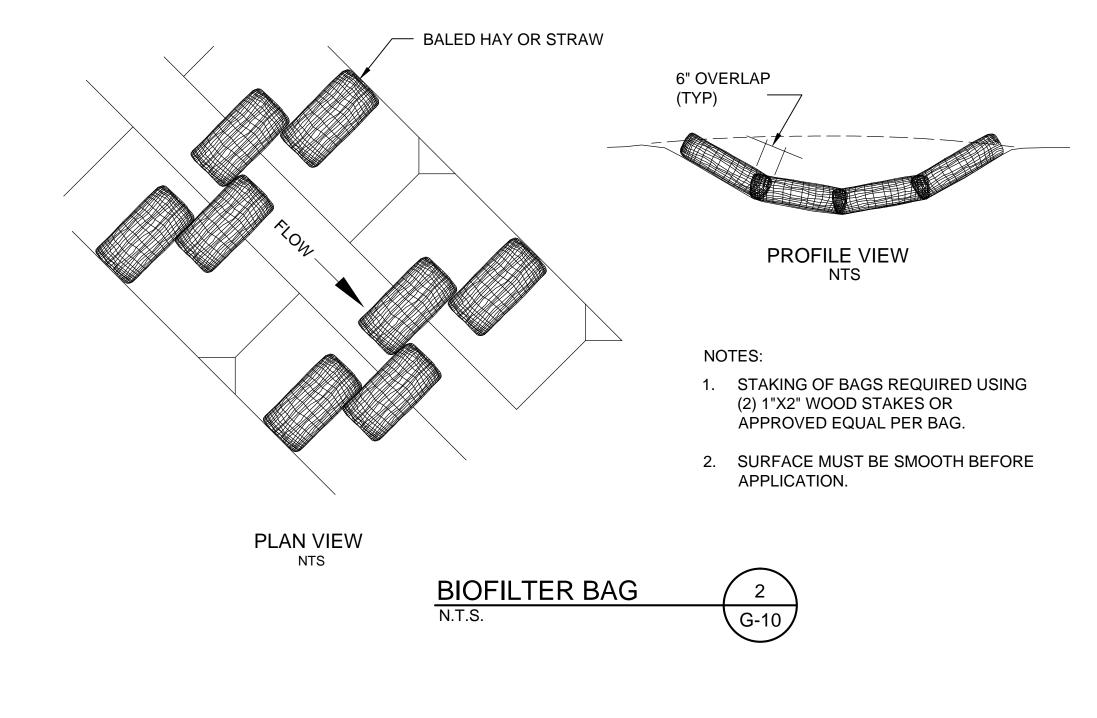


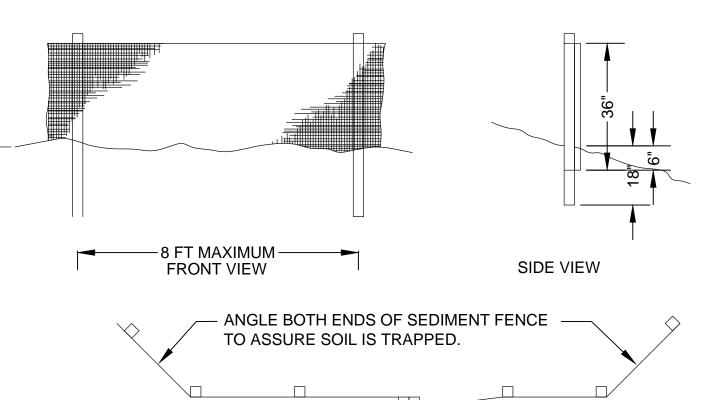


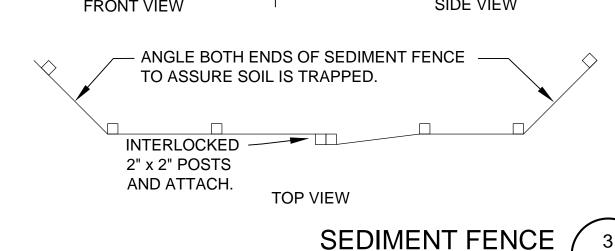


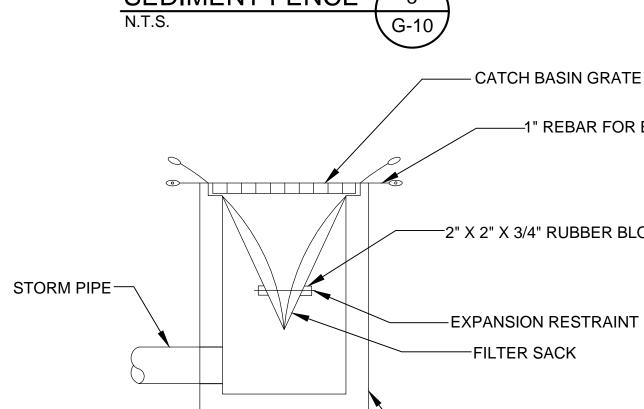
- 2. ALL INSPECTIONS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS. (SCHEDULE A.12.b AND SCHEDULE B.1.)
- INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS.
- RETAIN A COPY OF THE ESCP AND ALL REVISIONS ON SITE AND MAKE IT AVAILABLE ON REQUEST TO DEQ, AGENT, OR THE LOCAL MUNICIPALITY. DURING INACTIVE PERIODS OF GREATER THAN SEVEN (7) CONSECUTIVE CALENDAR DAYS, RETAIN THE ESCP AT THE CONSTRUCTION SITE OR AT ANOTHER LOCATION. (SCHEDULE B.2.a)
- ALL PERMIT REGISTRANTS MUST IMPLEMENT THE ESCP. FAILURE TO IMPLEMENT ANY OF THE CONTROL MEASURES OR PRACTICES DESCRIBED IN THE ESCP IS A VIOLATION OF THE PERMIT. (SCHEDULE A.8.a)
- 6. THE ESCP MUST BE ACCURATE AND REFLECT SITE CONDITIONS (SCHEDULE A.12.c.i.)
- 7. SUBMISSION OF ALL ESCP REVISIONS IS NOT REQUIRED. SUBMITTAL OF THE ESCP REVISIONS IS 25. IF AN ACTIVE TREATMENT SYSTEM (FOR EXAMPLE, ELECTRO-COAGULATION, FLOCCULATION, ONLY UNDER SPECIFIC CONDITIONS. SUBMIT ALL NECESSARY REVISION TO DEQ OR AGENT WITHIN 10 DAYS. (SCHEDULE A.12.c.iv. and v))
- PHASE CLEARING AND GRADING TO THE MAXIMUM EXTENT PRACTICAL TO PREVENT EXPOSED INACTIVE AREAS FROM BECOMING A SOURCE OF EROSION. (SCHEDULE A.7.a.iii)
- 9. IDENTIFY, MARK, AND PROTECT (BY FENCING OFF OR OTHER MEANS) CRITICAL RIPARIAN AREAS AND VEGETATION INCLUDING IMPORTANT TREES AND ASSOCIATE ROOTING ZONES, AND VEGETATION AREAS TO BE PRESERVED. IDENTIFY VEGETATIVE BUFFER ZONES BETWEEN THE SITE AND SENSITIVE AREAS (E.G. WETLANDS), AND OTHER AREAS TO BE PRESERVED, ESPECIALLY IN PERIMETER AREAS. (SCHEDULE A.8.c.i.(1) & (2))
- PRESERVE EXISTING VEGETATION WHEN PRACTICAL AND RE-VEGETATE OPEN AREAS. RE-VEGETATE OPEN AREAS WHEN PRACTICABLE BEFORE AND AFTER GRADING OR CONSTRUCTION. IDENTIFY THE TYPE OF VEGETATIVE SEED MIX USED. (SCHEDULE A.7.b.iii.(1)) AND A.7.b.iii.(3))
- 11. MAINTAIN AND DELINEATE ANY EXISTING NATURAL BUFFER WITHIN THE 50-FEET OF ATERS OF THE STATE. (SCHEDULE A.7.b.i. and (2(a)(b))
- 12. INSTALL PERIMETER SEDIMENT CONTROL, INCLUDING STORM DRAIN INLET PROTECTION AS WELL AS SEDIMENT BASINS, TRAPS, AND BARRIERS PRIOR TO LAND DISTURBANCE (SCHEDULE A.8.c.i.(5))
- 13. CONTROL PEAK FLOW RATES AND TOTAL STORMWATER VOLUME. TO MINIMIZE EROSION AT OUTLETS AND DOWNSTREAM CHANNELS AND STREAMBANKS. (SCHEDULE A.7.c)
- 14. CONTROL SEDIMENT AS NEEDED ALONG THE SITE PERIMETER AND AT ALL OPERATIONS INTERNAL STORM DRAIN INLETS AT ALL TIMES DURING CONSTRUCTION, BOTH INTERNALLY AND AT THE SITE BOUNDARY. (SCHEDULE A.7.d.i)
- 15. ESTABLISH CONCRETE TRUCK AND OTHER CONCRETE EQUIPMENT WASHOUT AREAS BEFORE BEGINNING CONCRETE WORK. (SCHEDULE A.8.c.i.(6))
- 16. APPLY TEMPORARY AND/OR PERMANENT SOIL STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS AS GRADING PROGRESSES. TEMPORARY OR PERMANENT STABILIZATIONS MEASURES ARE NOT REQUIRED FOR AREAS THAT ARE INTENDED TO BE LEFT UNVEGETATED, SUCH AS DIRT ACCESS ROADS OR UTILITY POLE PADS. (SCHEDULE A.8.c.ii.3))
- 17. ESTABLISH MATERIAL AND WASTE STORAGE AREAS, AND OTHER NON-STORMWATER CONTROLS. (SCHEDULE A.8.c.i.(7))
- 18. PREVENT TRACKING OF SEDIMENT ONTO PUBLIC OF PRIVATE ROADS USING BMPS SUCH AS: GRAVELED (OR PAVED) EXITS AND PARKING AREAS. GRAVEL ALL UNPAVED ROADS LOCATED ONSITE. OR USE AN EXIT TIRE WASH. THESE BMPS MUST BE IN PLACE PRIOR TO LAND-DISTURBING ACTIVITIES. (SCHEDULE A.7.d.ii AND A.8.c.i.(4))
- 19. WHEN TRUCKING SATURATED SOILS FROM THE SITE, EITHER USE WATER-TIGHT TRUCKS OR DRAIN LOADS ON SITE. (SCHEDULE A.7.d.ii.(5))
- 20. CONTROL PROHIBITED DISCHARGES FROM LEAVING THE CONSTRUCTION SITE, I.E., CONCRETE WASH-OUT, WASTEWATER FROM CLEANOUT OF STUCCO, PAINT AND CURING COMPOUNDS (SCHEDULE A.6)

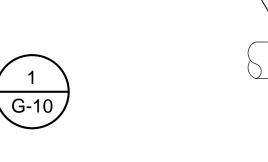
- 21. USE BMPS TO PREVENT OR MINIMIZE STORMWATER EXPOSURE TO POLLUTANTS FROM SPILLS; VEHICLE AND EQUIPMENT FUELING, MAINTENANCE, AND STORAGE; OTHER CLEANING AND MAINTENANCE ACTIVITIES; WASTE HANDLING ACTIVITIES. THESE POLLUTANTS INCLUDE FUEL HYDRAULIC FLUID, AND OTHER OILS FROM VEHICLES AND MACHINERY, AS WELL AS DEBRIS, LEFTOVER PAINTS, SOLVENTS, AND GLUES FROM CONSTRUCTION OPERATIONS, (SCHEDULE A.7.e.i.(2))
- 22. IMPLEMENT THE FOLLOWING BMPS WHEN APPLICABLE: WRITTEN SPILL PREVENTION AND RESPONSE PROCEDURES, EMPLOYEE TRAINING ON SPILL PREVENTION AND PROPER DISPOSAL PROCEDURES, SPILL KITS IN ALL VEHICLES, REGULAR MAINTENANCE SCHEDULE FOR VEHICLES AND MACHINERY, MATERIAL DELIVERY AND STORAGE CONTROLS, TRAINING AND SIGNAGE, AND COVERED STORAGE AREAS FOR WASTE AND SUPPLIES. (SCHEDULE A.7.e.iii.)
- 23. USE WATER, SOIL-BINDING AGENT OR OTHER DUST CONTROL TECHNIQUE AS NEEDED TO AVOID WIND-BLOWN SOIL. (SCHEDULE A.7.A.iv)
- 24. THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS TO MINIMIZE NUTRIENT RELEASES TO SURFACE WATERS. EXERCISE CAUTION WHEN USING TIME-RELEASE FERTILIZERS WITHIN ANY WATERWAY OR RIPARIAN ZONE. (SCHEDULE A.9.b.iii.)
- FILTRATION, ETC.) FOR SEDIMENT OR OTHER POLLUTANT REMOVAL IS EMPLOYED, SUBMIT AN OPERATION AND MAINTENANCE PLAN (INCLUDING SYSTEM SCHEMATIC, LOCATION OF SYSTEM, LOCATION OF INLET, LOCATION OF DISCHARGE, DISCHARGE DISPERSION DEVICE DESIGN, AND A SAMPLING PLAN AND FREQUENCY) BEFORE OPERATING THE TREATMENT SYSTEM. OBTAIN PLAN APPROVAL BEFORE OPERATING THE TREATMENT SYSTEM. OPERATE AND MAINTAIN THE TREATMENT SYSTEM ACCORDING TO MANUFACTURER'S SPECIFICATIONS. (SCHEDULE A.9.d.)
- 26. TEMPORARILY STABILIZE SOILS AT THE END OF THE SHIFT BEFORE HOLIDAYS AND WEEKENDS IF NEEDED. THE REGISTRANT IS RESPONSIBLE FOR ENSURING THAT SOILS ARE STABLE DURING RAIN EVENTS AT ALL TIMES OF THE YEAR. (SCHEDULE A.7.b.)
- 27. AS NEEDED BASED ON WEATHER CONDITIONS, AT THE END OF EACH WORKDAY SOIL STOCKPILES MUST BE STABILIZED OR COVERED, OR OTHER BMPS MUST BE IMPLEMENTED TO PREVENT DISCHARGES TO SURFACE WATERS OR CONVEYANCE SYSTEMS LEADING TO SURFACE WATERS. (SCHEDULE A.7.e.ii.(2))
- 28. CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND BARE GROUND ACTIVITIES DURING WET WEATHER. (SCHEDULE A.7.a.i.)
- 29. SEDIMENT FENCE: REMOVE TRAPPED SEDIMENT BEFORE IT REACHES ONE THIRD OF THE ABOVE GROUND HEIGHT AND BEFORE FENCE REMOVAL. (SCHEDULE A.9.c.i.)
- 30. OTHER SEDIMENT BARRIERS (SUCH AS BIOBAGS): REMOVE SEDIMENT BEFORE IT REACHES TWO INCHES DEPTH ABOVE GROUND HEIGHT AND BEFORE BMP REMOVAL. (SCHEDULE A.9.c.i.)
- 31. CATCH BASINS: CLEAN BEFORE RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT. SEDIMENT BASINS AND SEDIMENT TRAPS: REMOVE TRAPPED SEDIMENTS BEFORE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT AND AT COMPLETION OF PROJECT
- 32. WITHIN 24 HOURS, SIGNIFICANT SEDIMENT THAT HAS LEFT THE CONSTRUCTION SITE, MUST BE REMEDIATED. INVESTIGATE THE CAUSE OF THE SEDIMENT RELEASE AND IMPLEMENT STEPS TO PREVENT A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DIVISION OF STATE LANDS REQUIRED TIMEFRAME. (SCHEDULE A.9.b.i.)
- 33. THE INTENTIONAL WASHING OF SEDIMENT INTO STORM SEWERS OR DRAINAGE WAYS MUST NOT OCCUR. VACUUMING OR DRY SWEEPING AND MATERIAL PICKUP MUST BE USED TO CLEAN UP RELEASED SEDIMENTS. (SCHEDULE A.9.b.ii.)
- 34. THE ENTIRE SITE MUST BE TEMPORARILY STABILIZED USING VEGETATION OR A HEAVY MULCH LAYER, TEMPORARY SEEDING, OR OTHER METHOD SHOULD CONSTRUCTION ACTIVITIES CEASE FOR 30 DAYS OR MORE. (SCHEDULE A.7.f.i.)
- 35. PROVIDE TEMPORARY STABILIZATION FOR THAT PORTION OF THE SITE WHERE CONSTRUCTION ACTIVITIES CEASE FOR 14 DAYS OR MORE WITH A COVERING OF BLOWN STRAW AND TACKIFIER, LOOSE STRAW, OR AN ADEQUATE COVERING OF COMPOST MULCH UNTIL WORK RESUMES ON THAT PORTION OF THE SITE. (SCHEDULE A.7.f.ii.)
- 36. DO NOT REMOVE TEMPORARY SEDIMENT CONTROL PRACTICES UNTIL PERMANENT VEGETATION OR OTHER COVER OF EXPOSED AREAS IS ESTABLISHED. ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, ALL TEMPORARY EROSION CONTROLS AND RETAINED SOILS MUST BE REMOVED AND DISPOSED OF PROPERLY, UNLESS DOING SO CONFLICTS WITH LOCAL REQUIREMENTS. (SCHEDULE A.8.c.iii(1) AND D.3.c.ii and iii)











-1" REBAR FOR BAG REMOVAL -2" X 2" X 3/4" RUBBER BLOCK -EXPANSION RESTRAINT EXISTING CATCH BASIN

NOTES:

POSTS.

BURY BOTTOM OF FILTER FABRIC 6"

STITCHED LOOPS TO BE INSTALLED

COMPACT NATIVE FILL IN ALL AREAS

MIN. VERTICALLY BELOW GRADE.

2. 2" x 2" FIR, PINE, OR STEEL FENCE

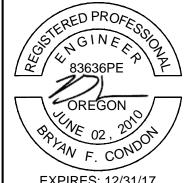
UPHILL SIDE OF SLOPE.

OF FILTER FABRIC TRENCH.

FABRIC INLET PROTECTION

G-10





VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

NO. DATE BY APPR **REVISIONS**

ENGINEERING

APRIL 2016

DATE:

TYPICAL BIOFILTER BAGS.

PLACE AT INLETS AND

CULVERT ENTRANCES.

DESIGNED BY: BFC PORTLAND OFFICE 5331 SW MACADAM AVE., #207 DRAWN BY: PORTLAND, OR 97239 JLS 503.419.2130 503.639.2710 FAX CHECKED BY: JNR PROJECT NO: SCALE:

AS NOTED

BIOFILTER INLET PROTECTION

40228.008.03

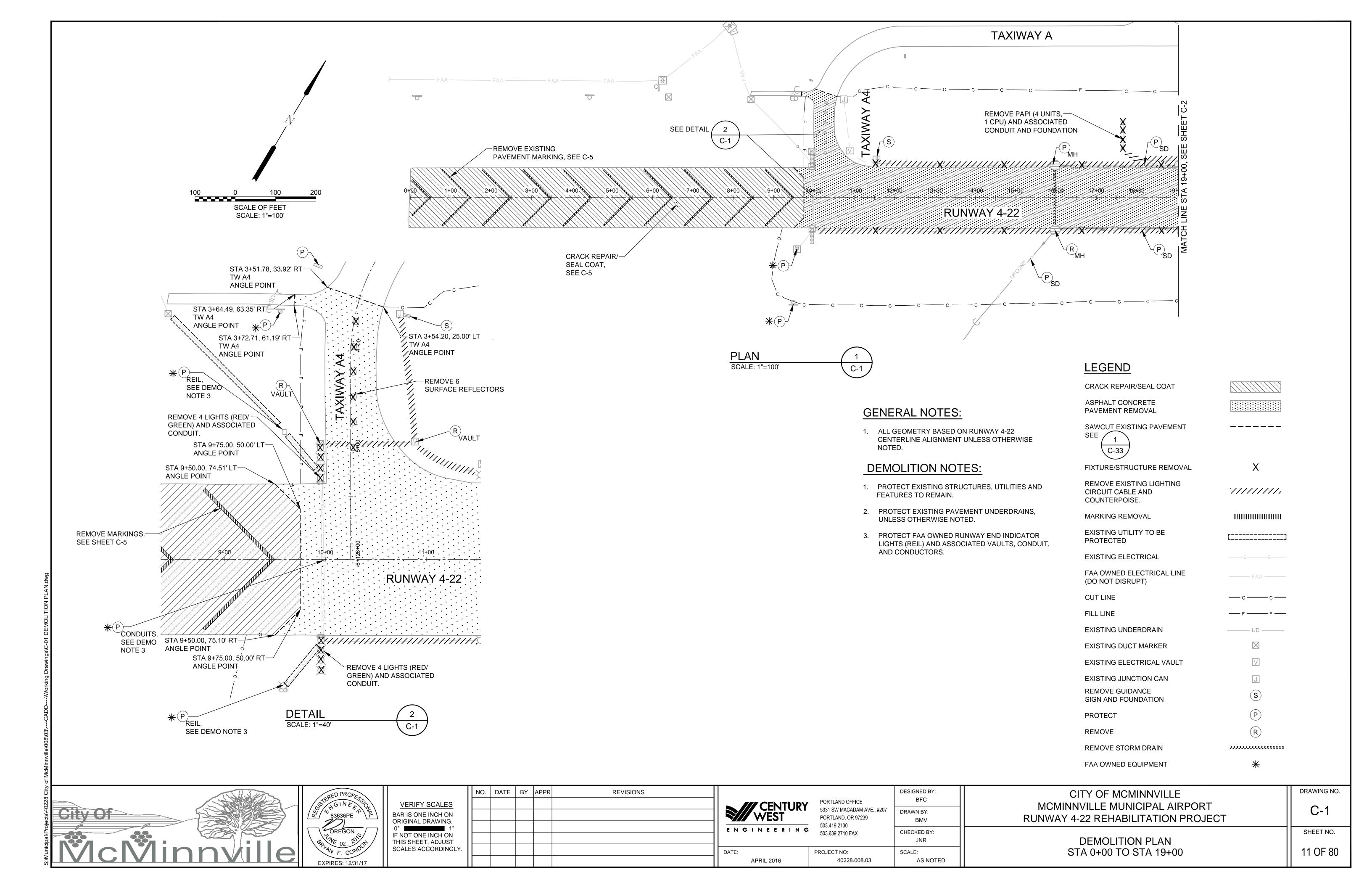
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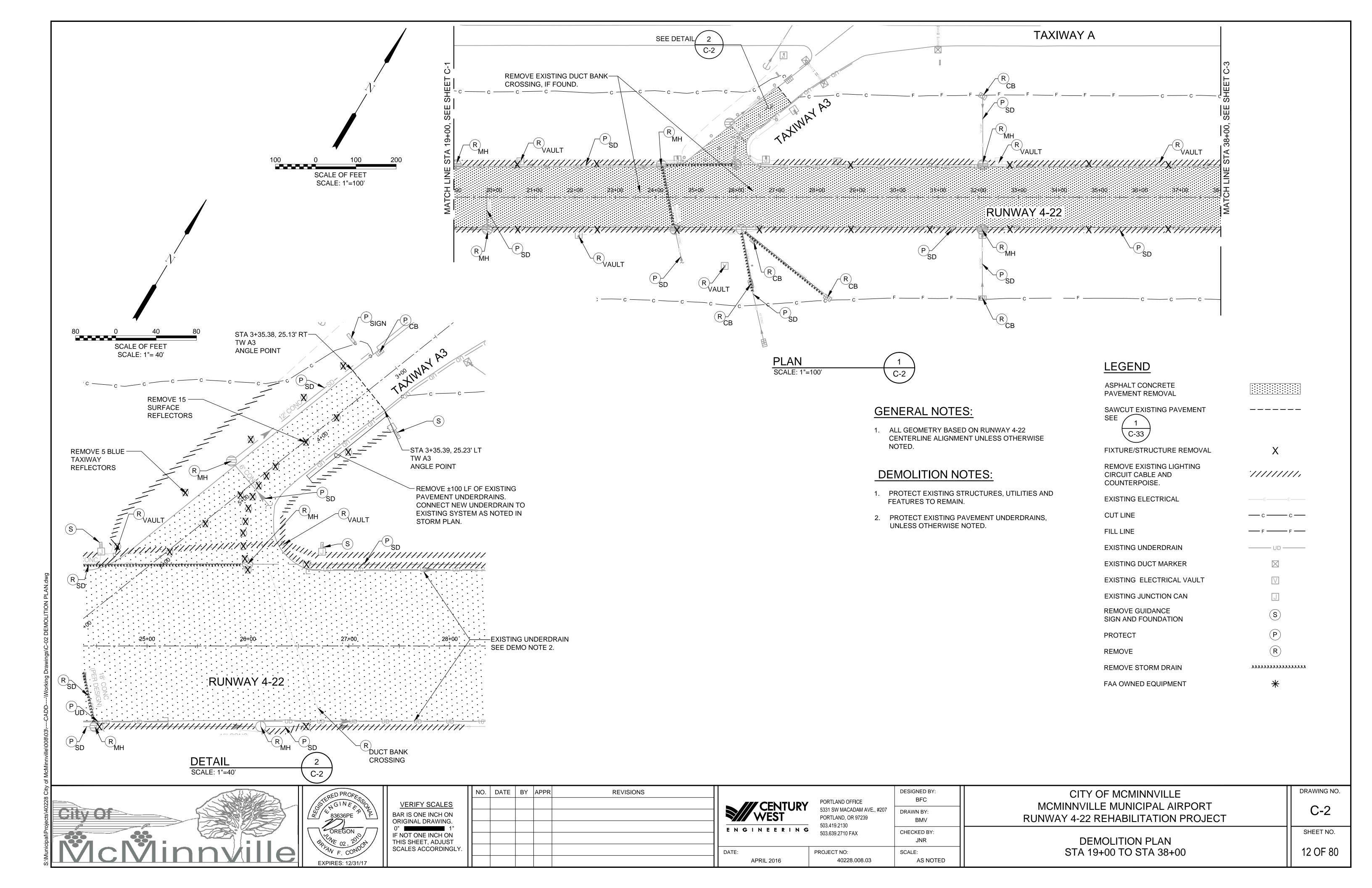
EROSION CONTROL PLAN NOTES AND DETAILS

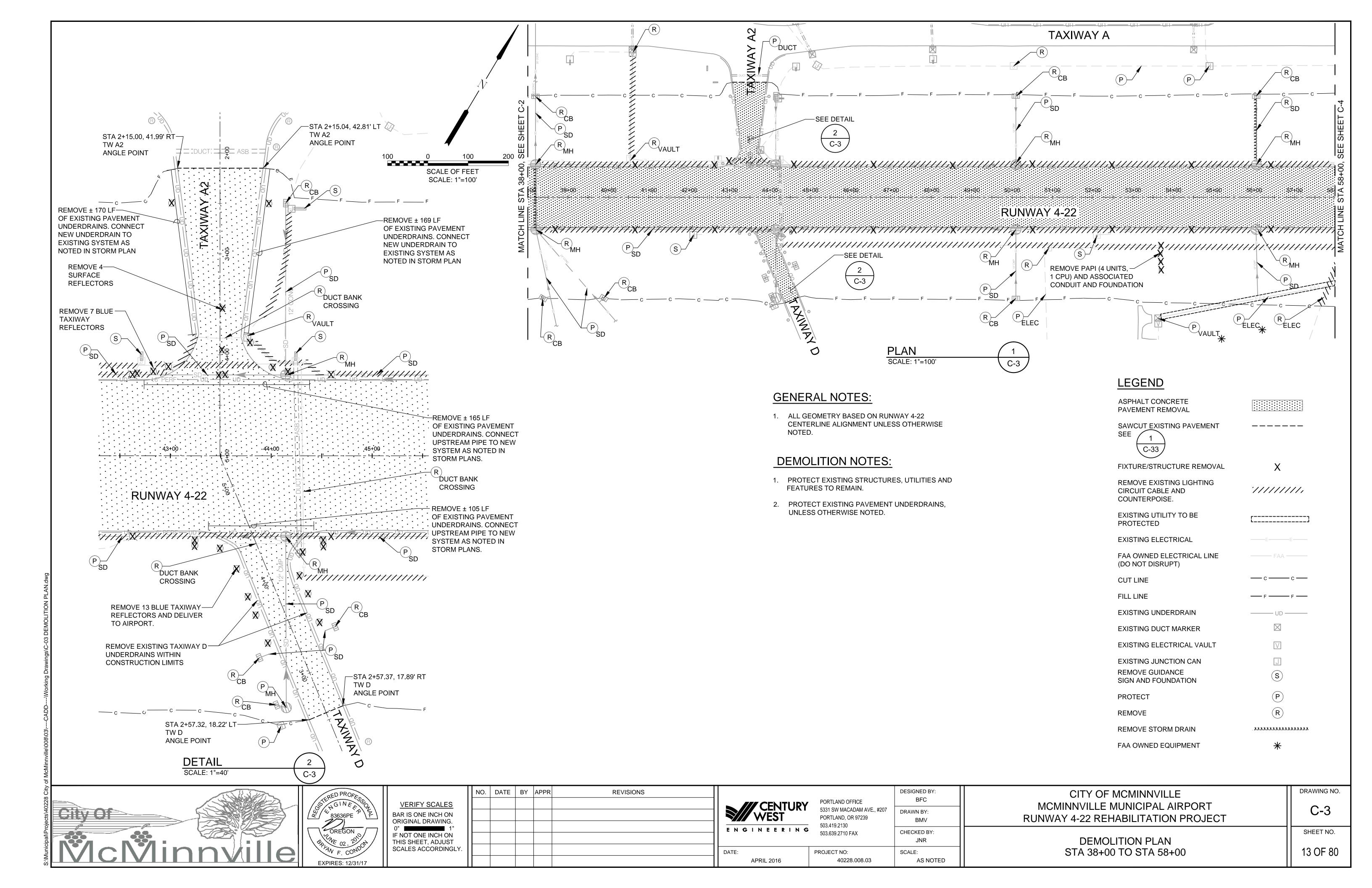
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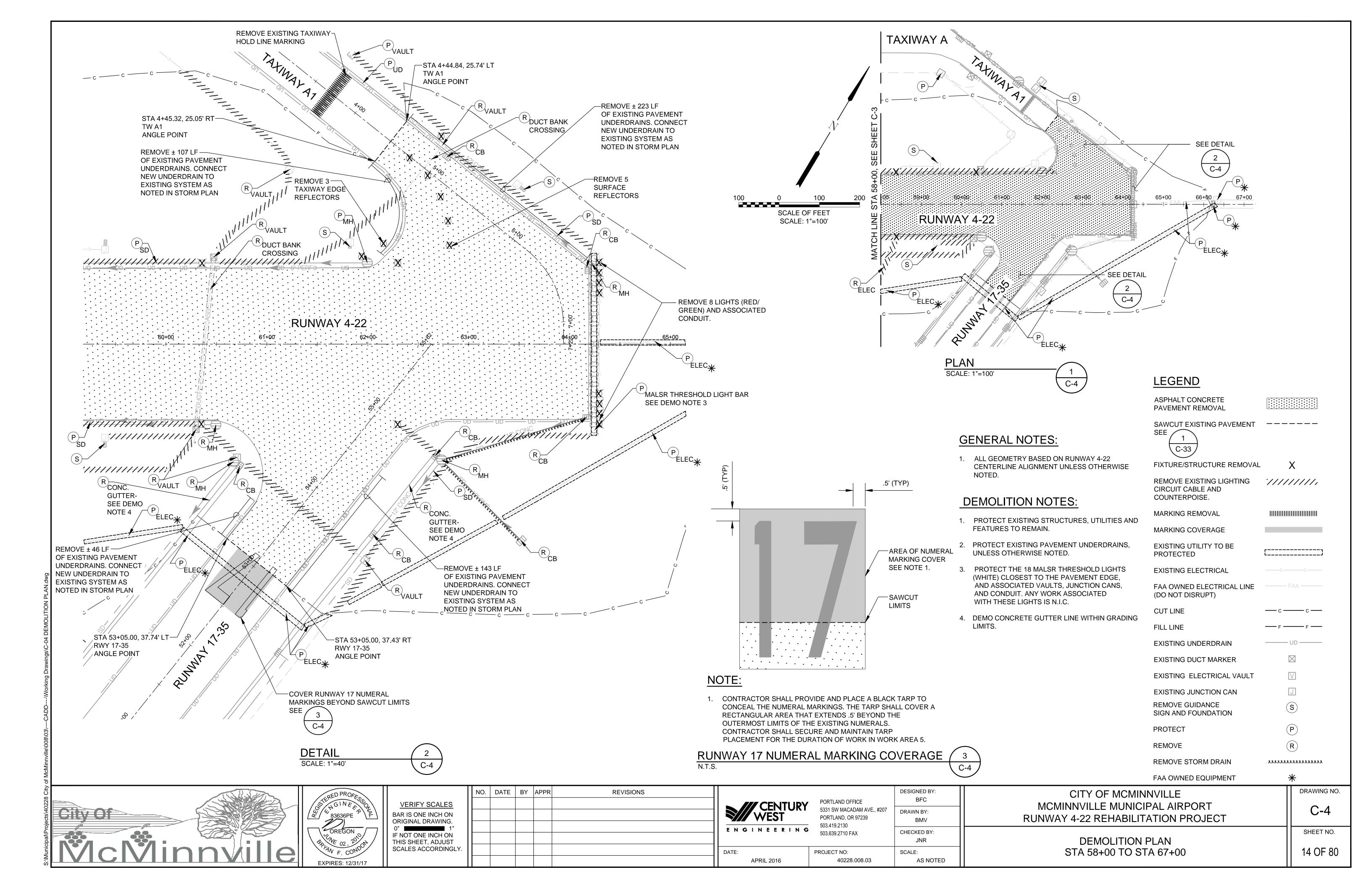
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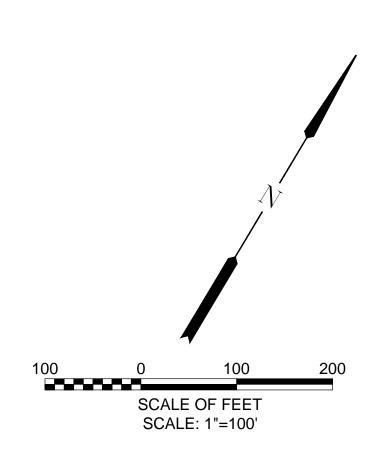
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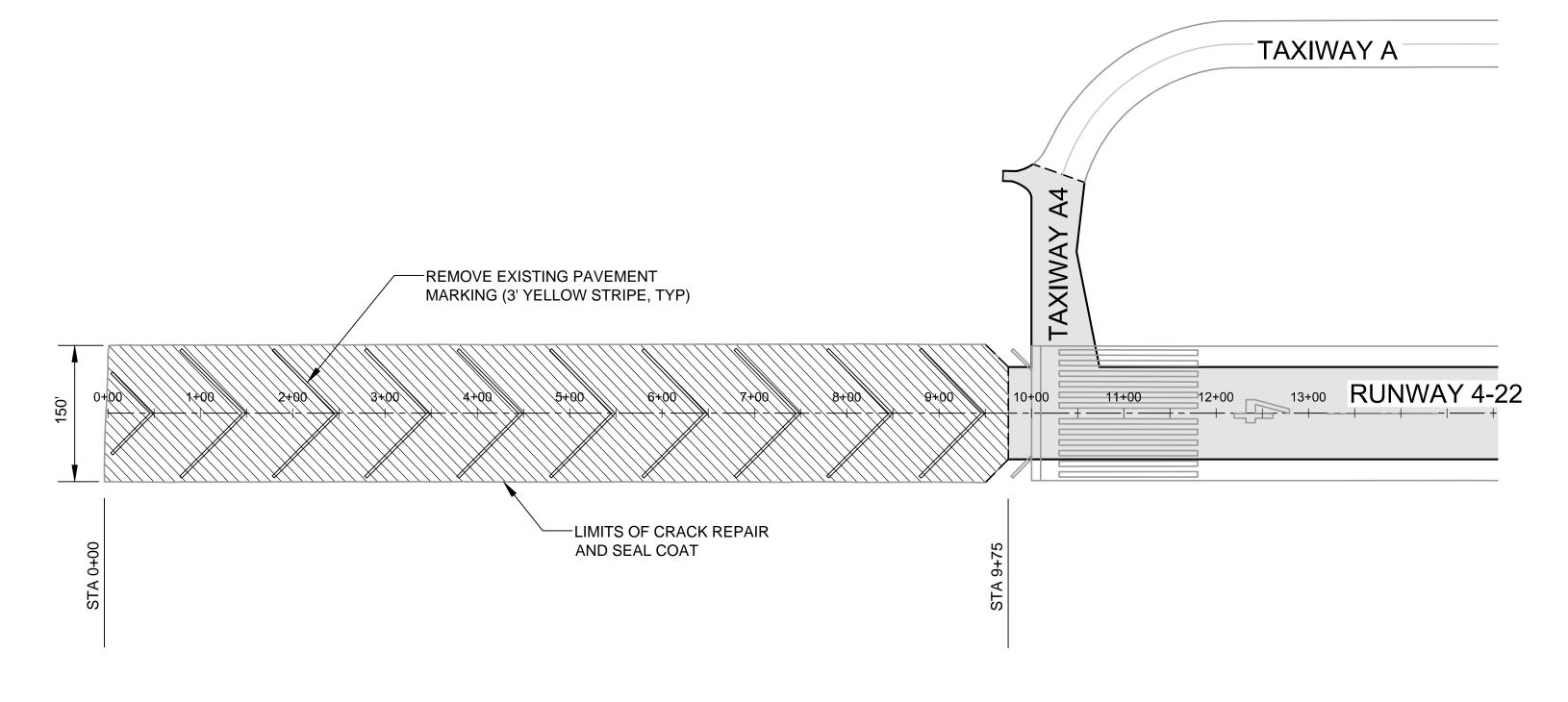












CRACK REPAIR AND SEAL COAT PLAN

SCALE: 1"=100"

1

C-5



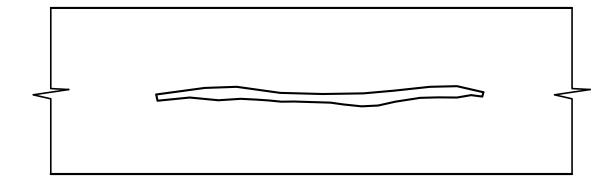
CRACK REPAIR/ SEAL COAT SEE DETAILS

2

C-5

C-

NEW PAVEMENT

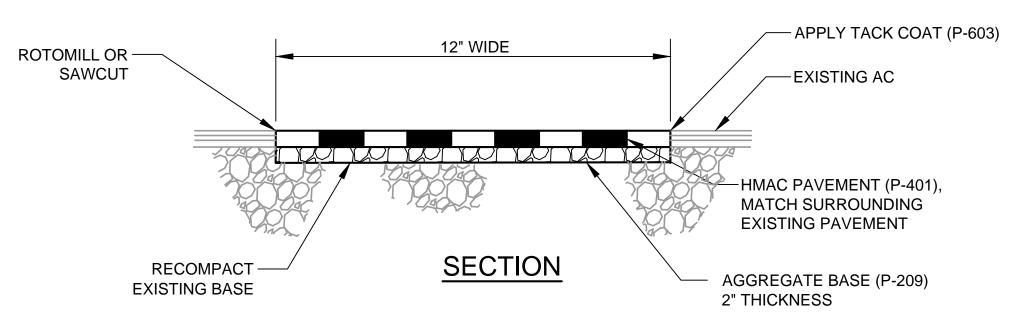


NOTES:

- 1. CLEAR CRACK OF ALL EXISTING DEBRIS AND VEGETATION.
- 2. FOR PREVIOUSLY SEALED CRACKS, HEAT LANCE TO LIQUIFY EXISTING FILLER MATERIAL. CRACKS SHALL BE REFILLED TO MATCH FINISH SURFACE.
- 3. FOR CRACKS WITH EXCESS VEGETATION, CLEAN CRACKS WITH HEAT LANCE AND FILL WITH RUBBERIZED ASPHALT CRACK SEALANT TO MATCH FINISHED SURFACE.
- 4. FOR PREVIOUSLY UNSEALED CRACKS, ROUTE AND FILL WITH RUBBERIZED ASPHALT CRACK SEALANT.
- 5. CRACK REPAIR WILL BE MARKED OUT IN THE FIELD BY THE ENGINEER PRIOR TO WORK.

CRACK REPAIR FOR CRACKS LESS THAN 1" IN WIDTH 2

N.T.S. C-5



NOTE:

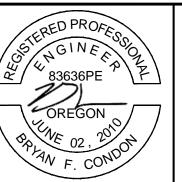
1. CRACK REPAIR WILL BE MARKED OUT IN THE FIELD BY THE ENGINEER PRIOR TO WORK.

CRACK REPAIR FOR
CRACKS GREATER THAN 1" IN WIDTH
3
C-5

GENERAL NOTES:

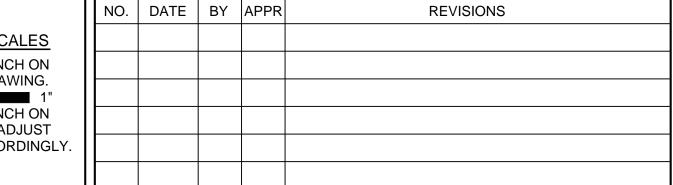
- 1. ALL EXISTING PAVEMENT MARKINGS WITHIN SEAL COAT LIMITS TO BE REMOVED PRIOR TO CRACK SEALING. ENGINEER HAS REPRESENTED EXISTING MARKINGS IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE EXISTING MARKINGS IN THE FIELD AND REMOVE ACCORDING TO THE SPECIFICATIONS.
- 2. ANY GRASS OR WEEDS OVERGROWN ON TO PAVEMENT SURFACE SHALL BE ELIMINATED PRIOR TO SEAL COAT.
- 3. PAVEMENT MARKINGS TO BE REMARKED AFTER SEAL COAT, SEE C-47.





VERIFY SCALES

BAR IS ONE INCH ON
ORIGINAL DRAWING.
0" 1"
IF NOT ONE INCH ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY.





APRIL 2016

PORTLAND OFFICE
5331 SW MACADAM AVE., #207
PORTLAND, OR 97239
503.419.2130
503.639.2710 FAX

PROJECT NO:
40228.008.03

DESIGNED BY:
BFC

DRAWN BY:
CHECKED BY:
JNR

SCALE:
AS NOTED

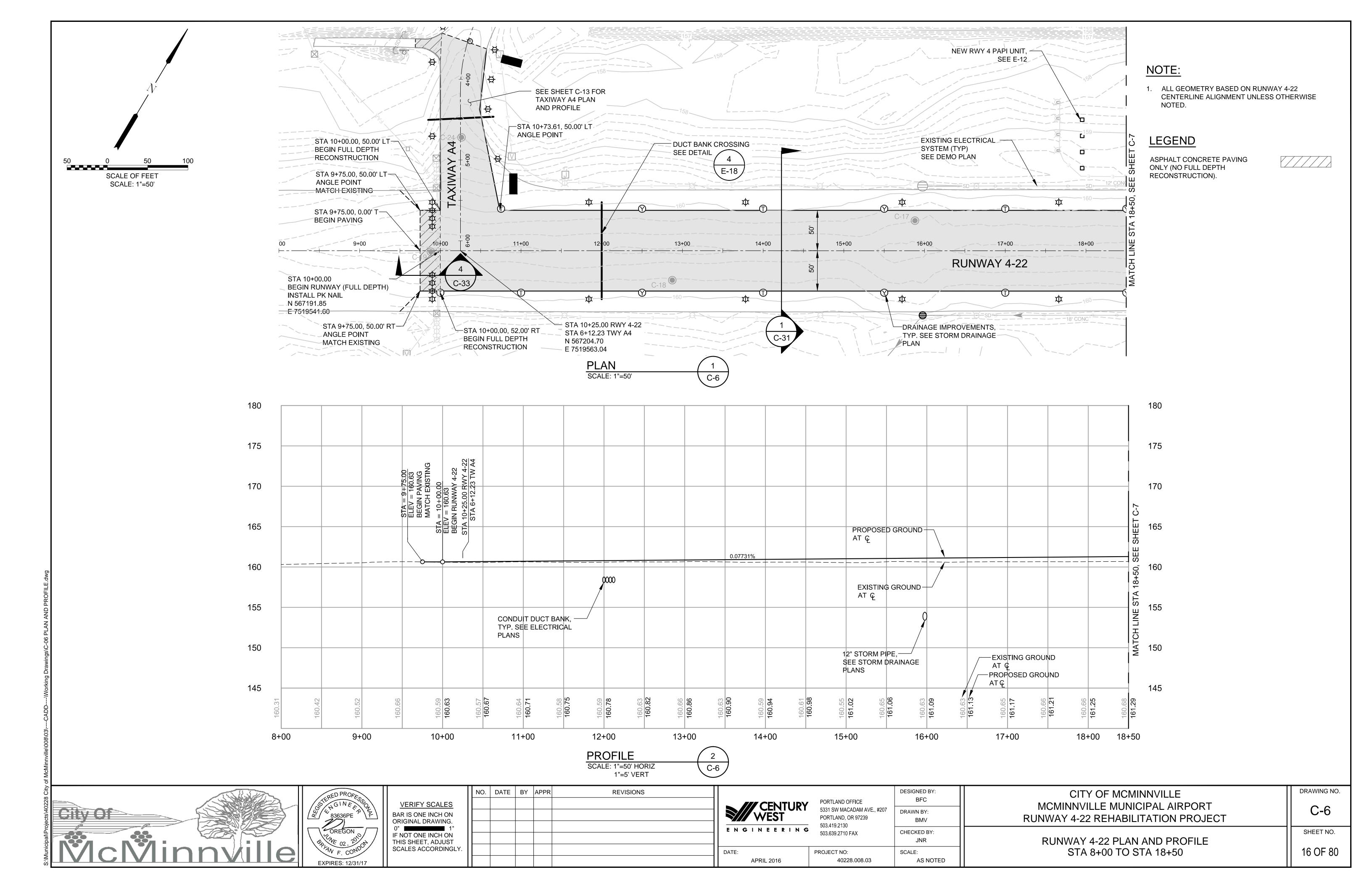
CITY OF MCMINNVILLE MCMINNVILLE MUNICIPAL AIRPORT RUNWAY 4-22 REHABILITATION PROJECT

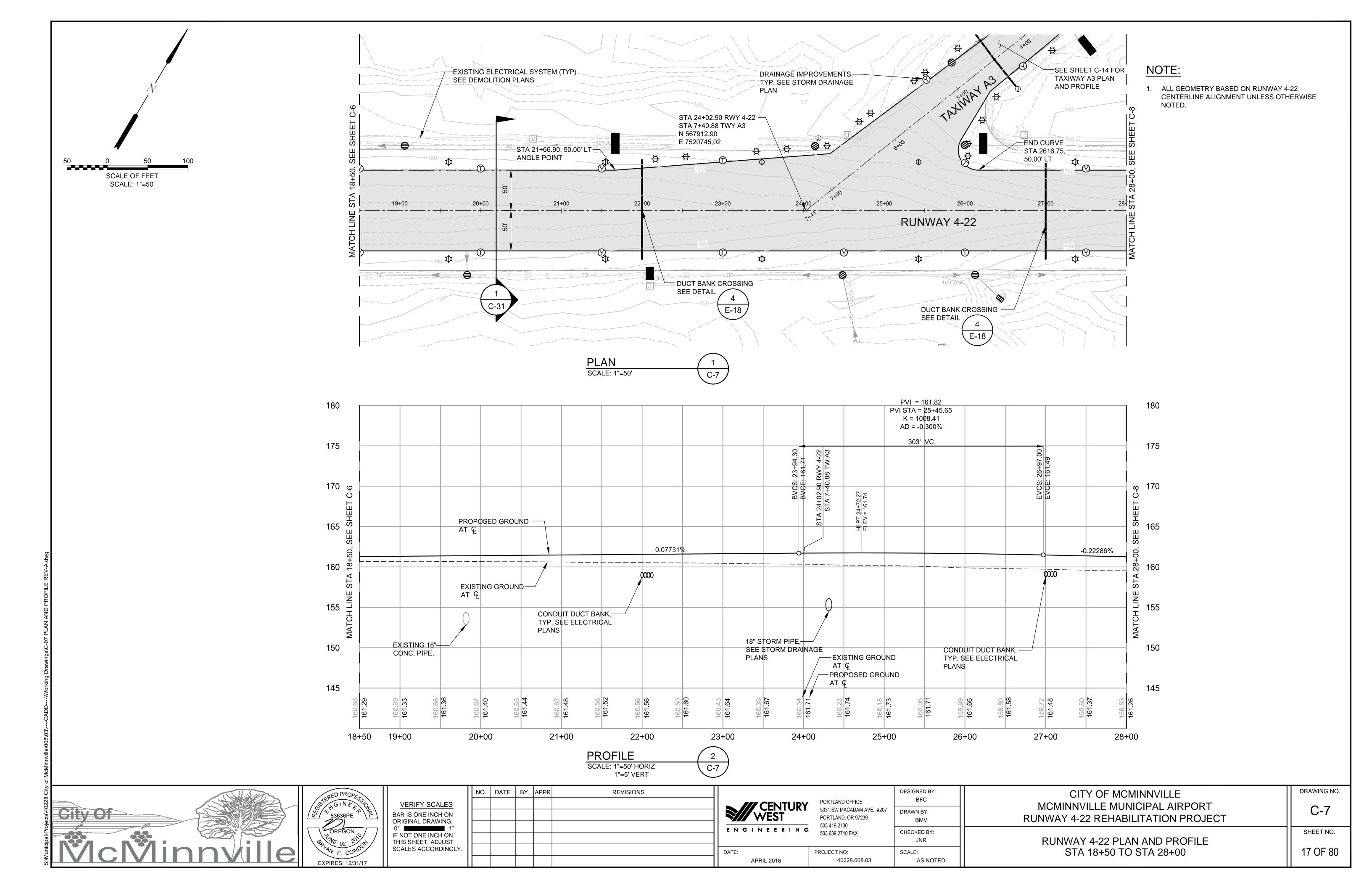
CRACK REPAIR AND SEAL COAT PLAN

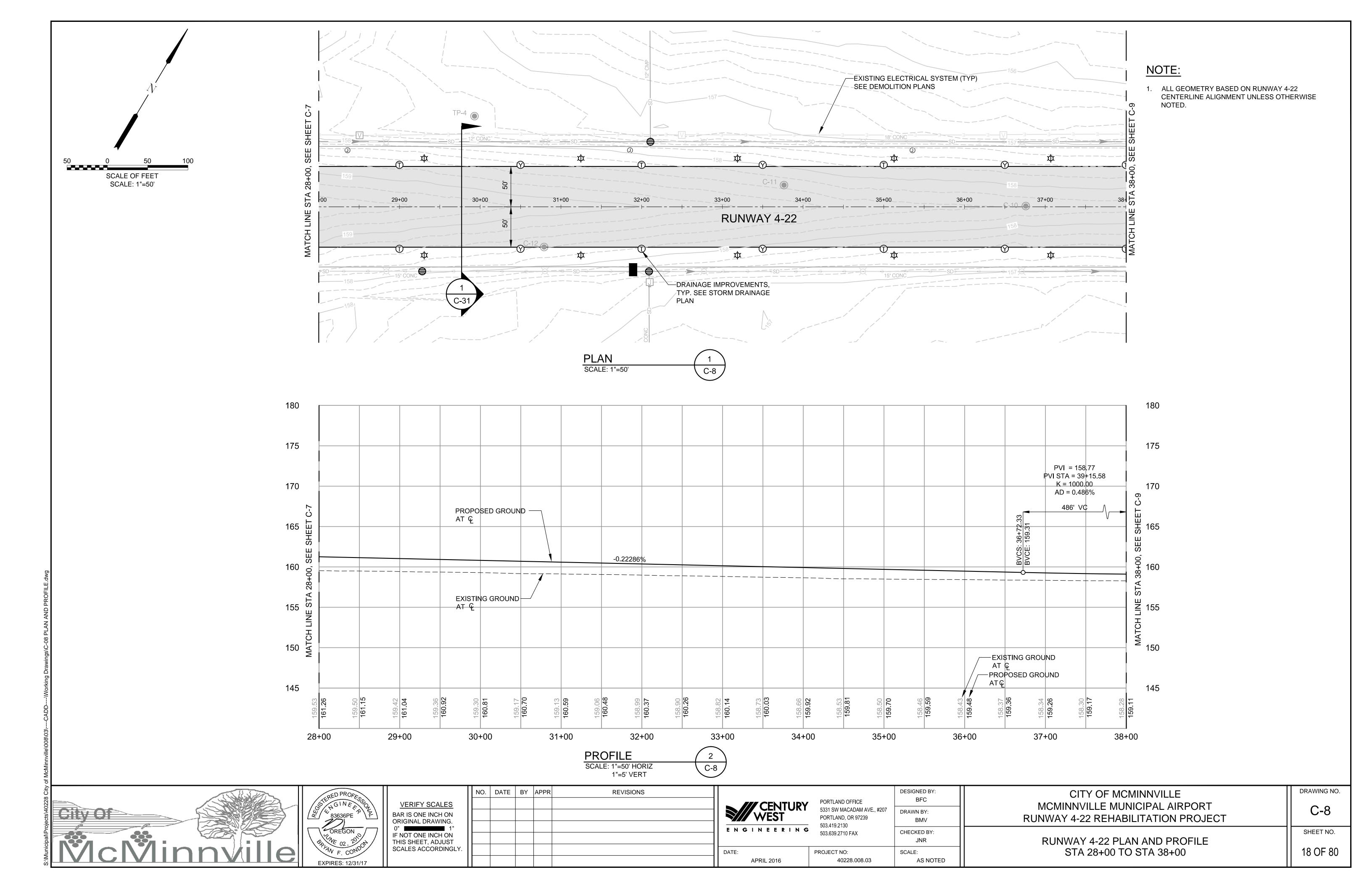
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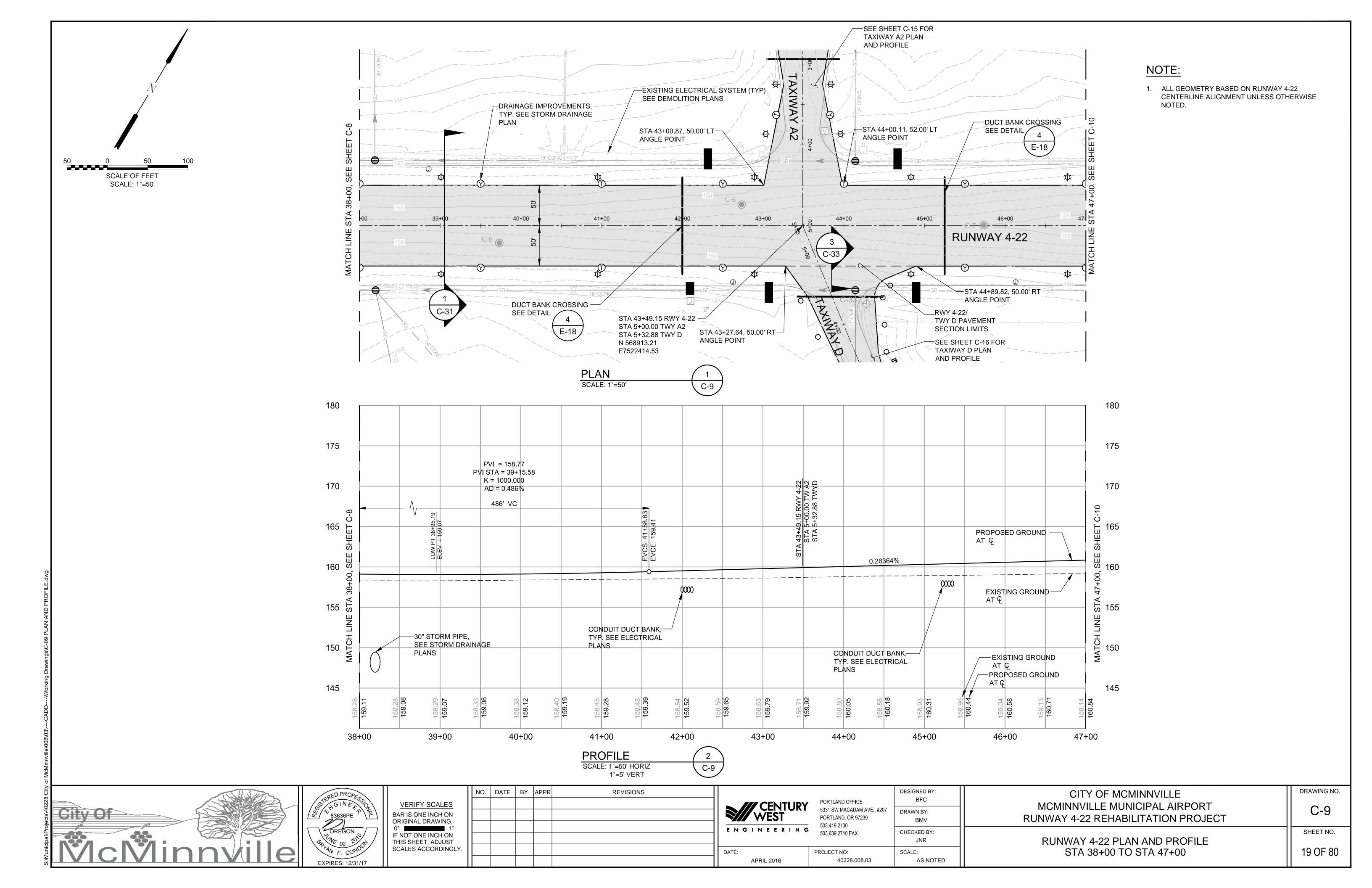
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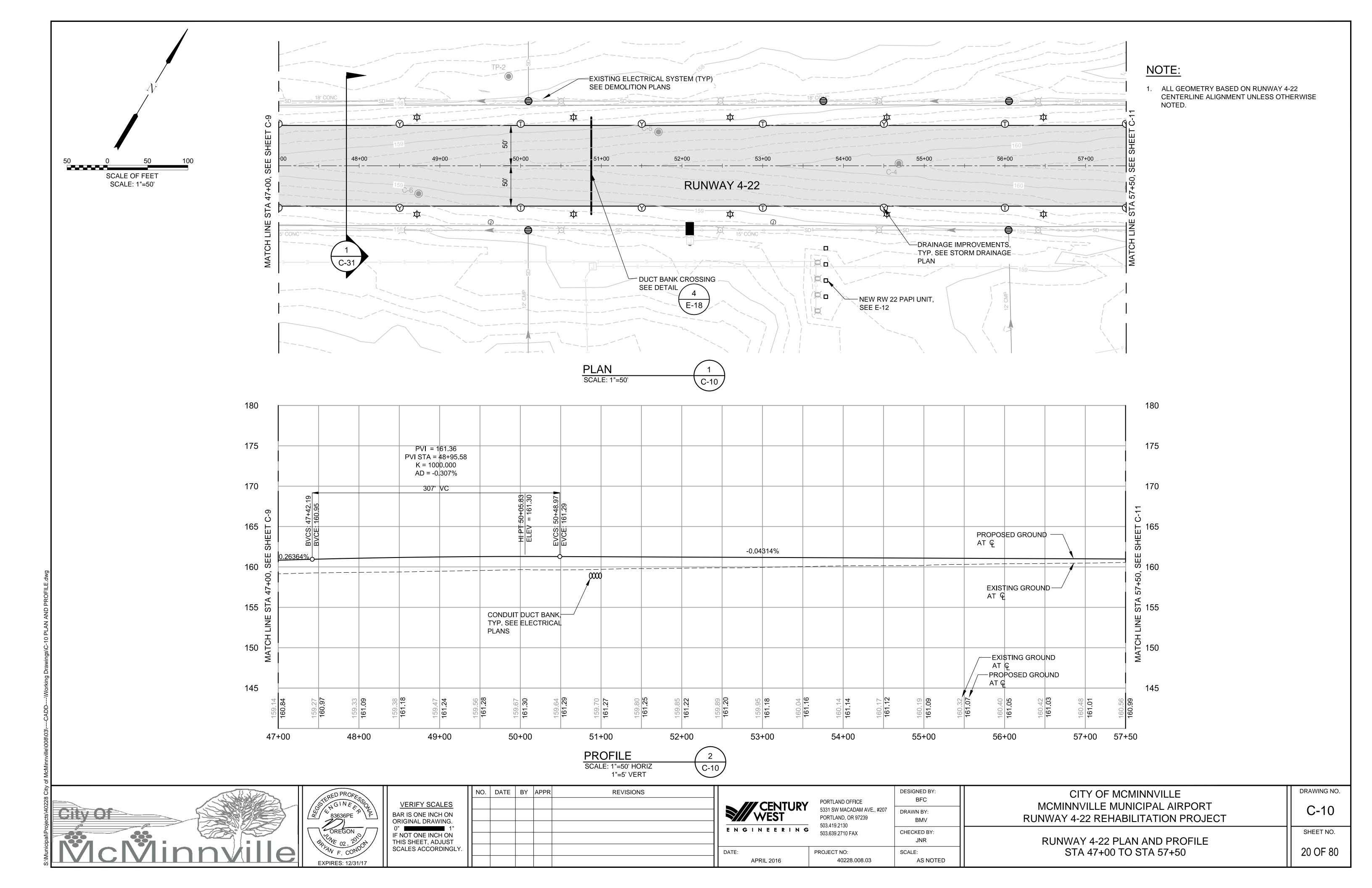
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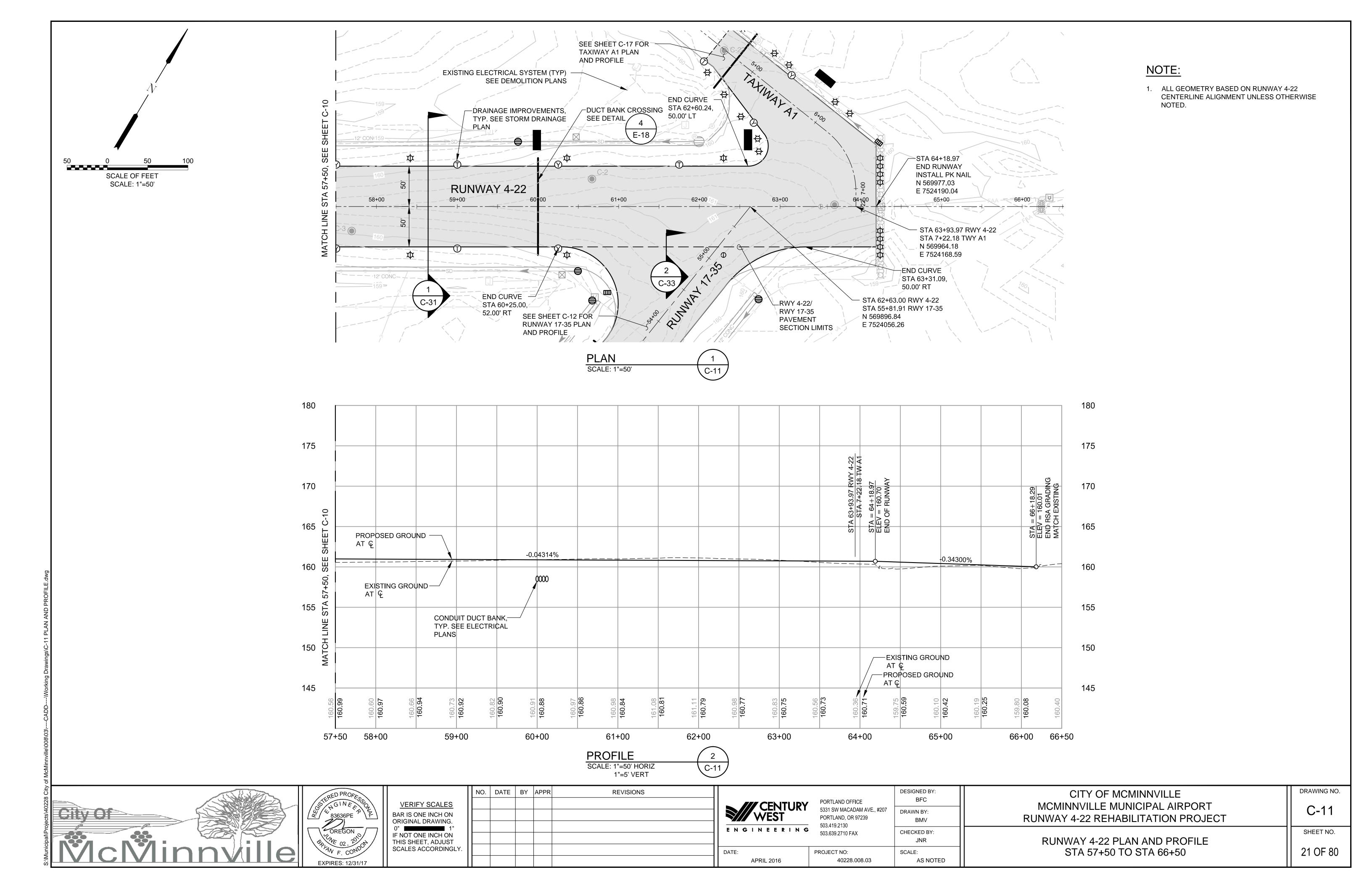


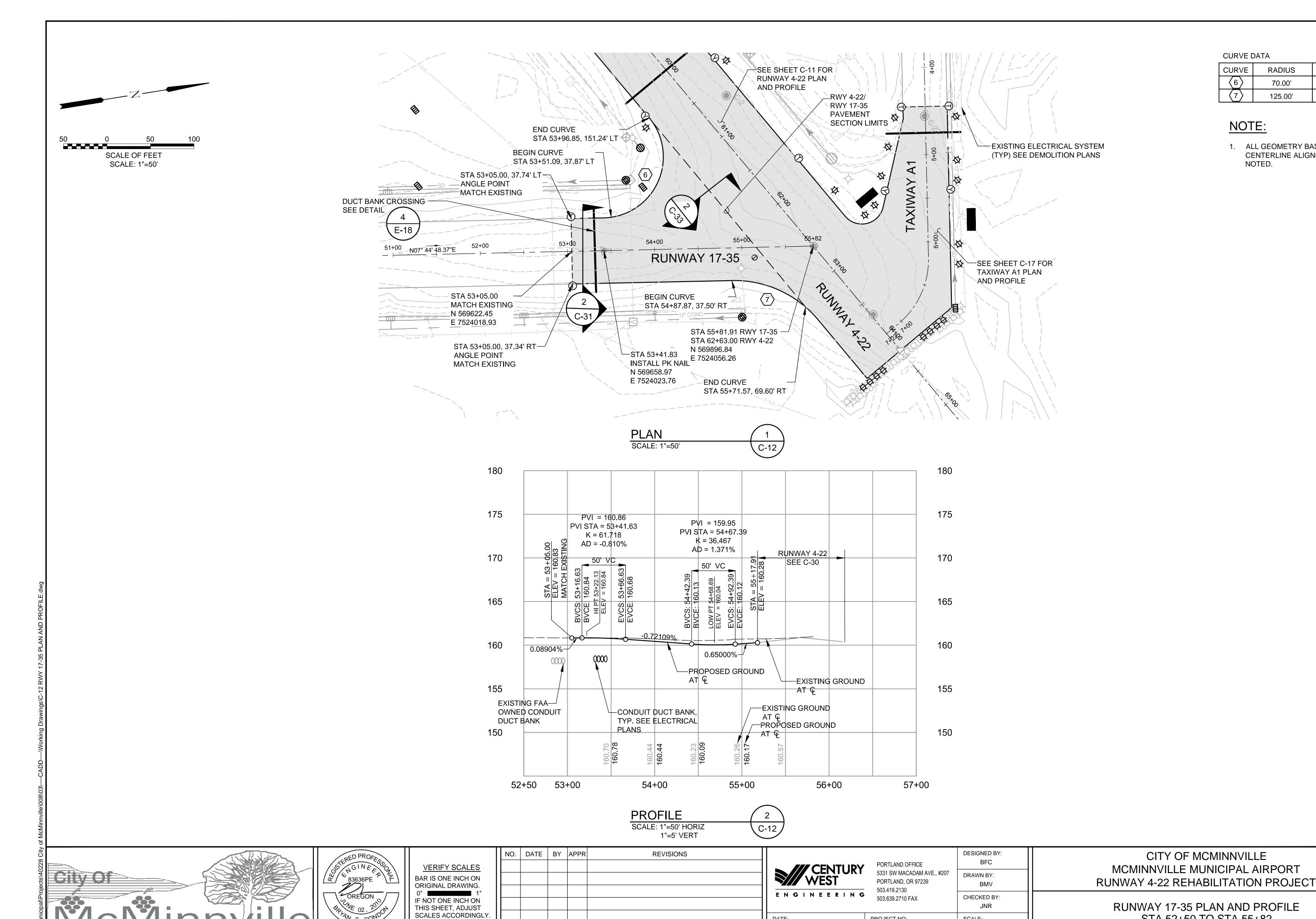












DATE:

APRIL 2016

PROJECT NO:

40228.008.03

SCALE:

AS NOTED

CURVE DATA

CURVE	RADIUS	DELTA	LENGTH
6	70.00'	128°40'31"	157.207'
7	125.00'	51°19'29"	111.973'

NOTE:

STA 52+50 TO STA 55+82

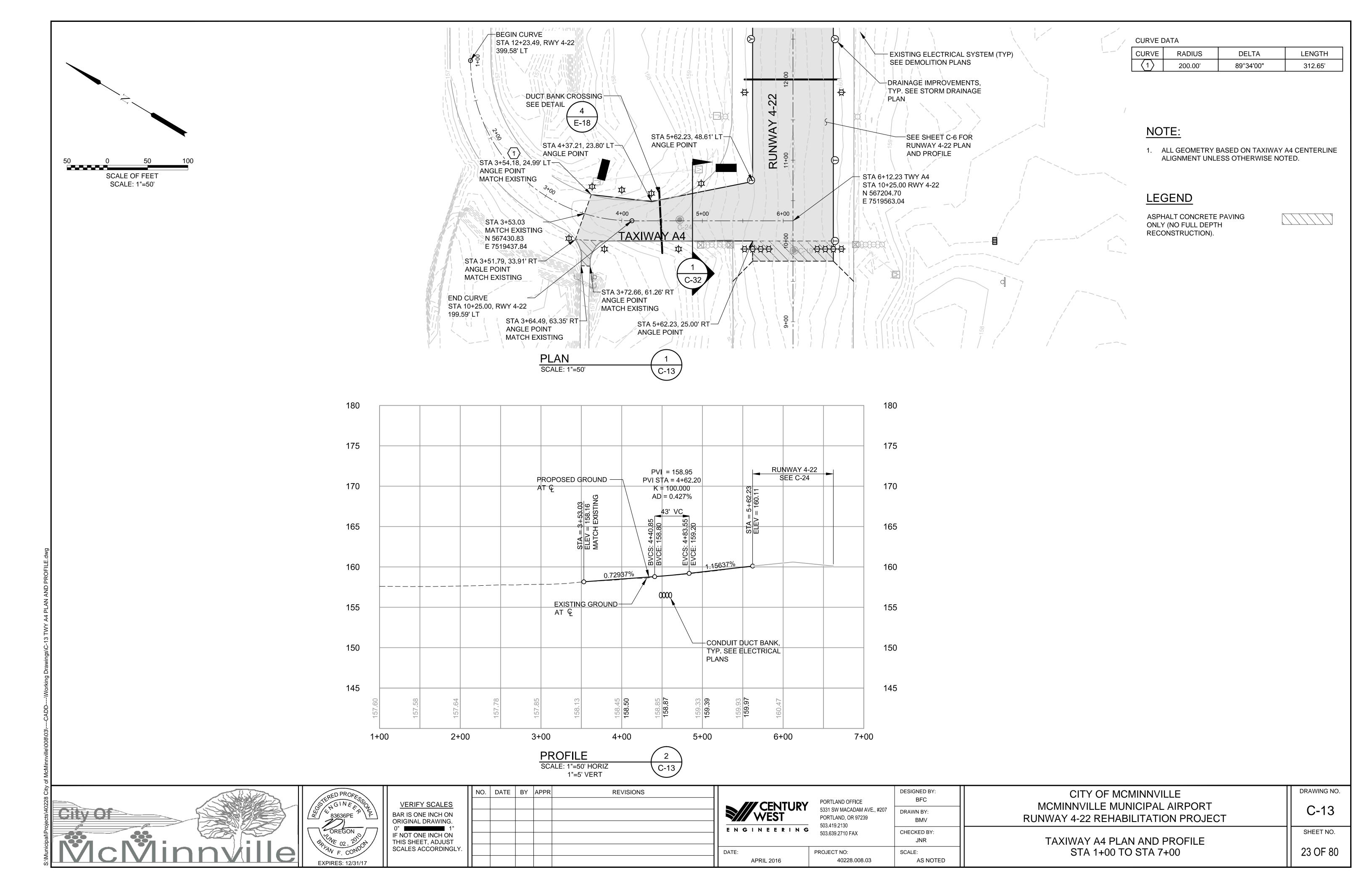
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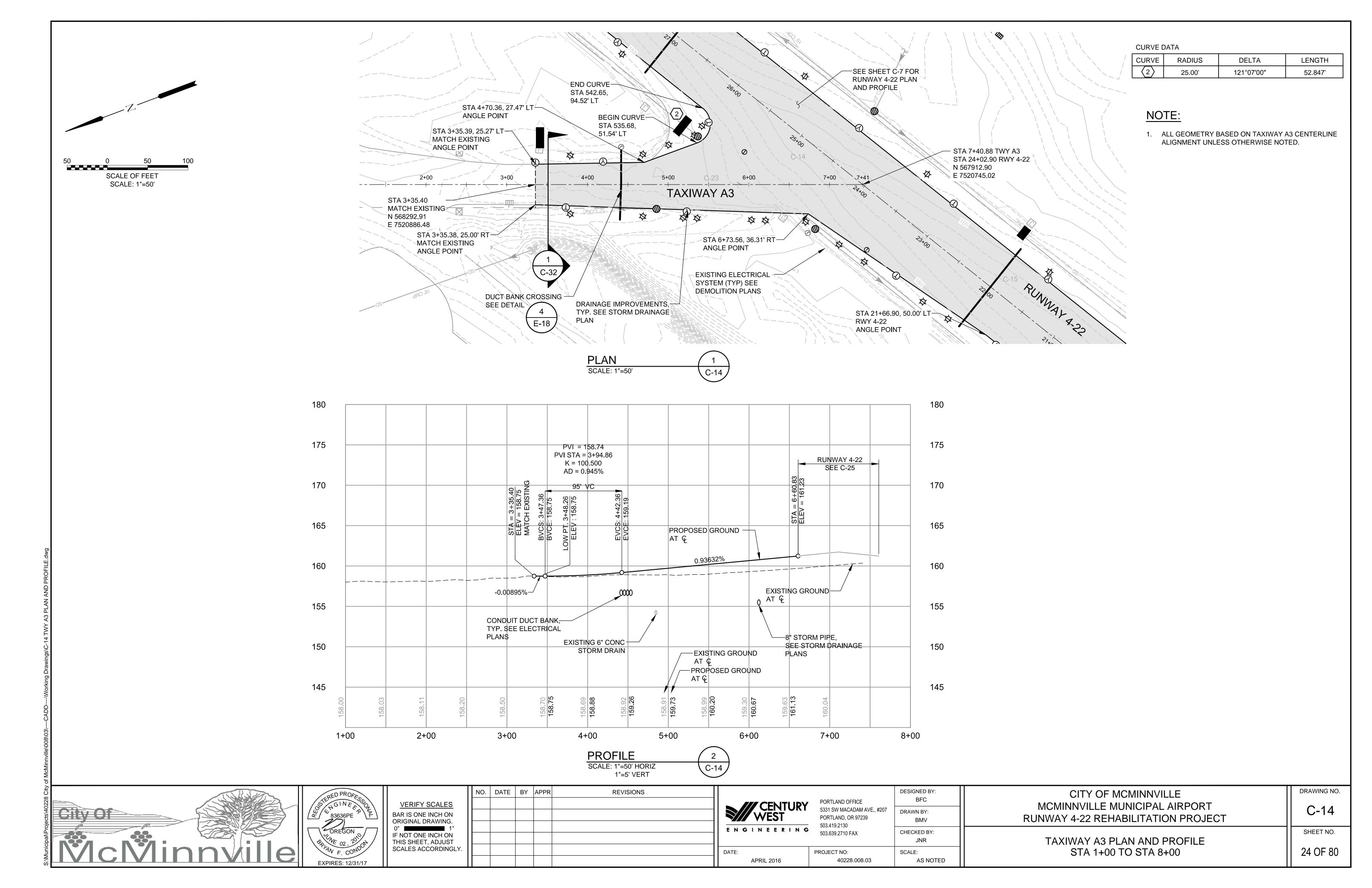
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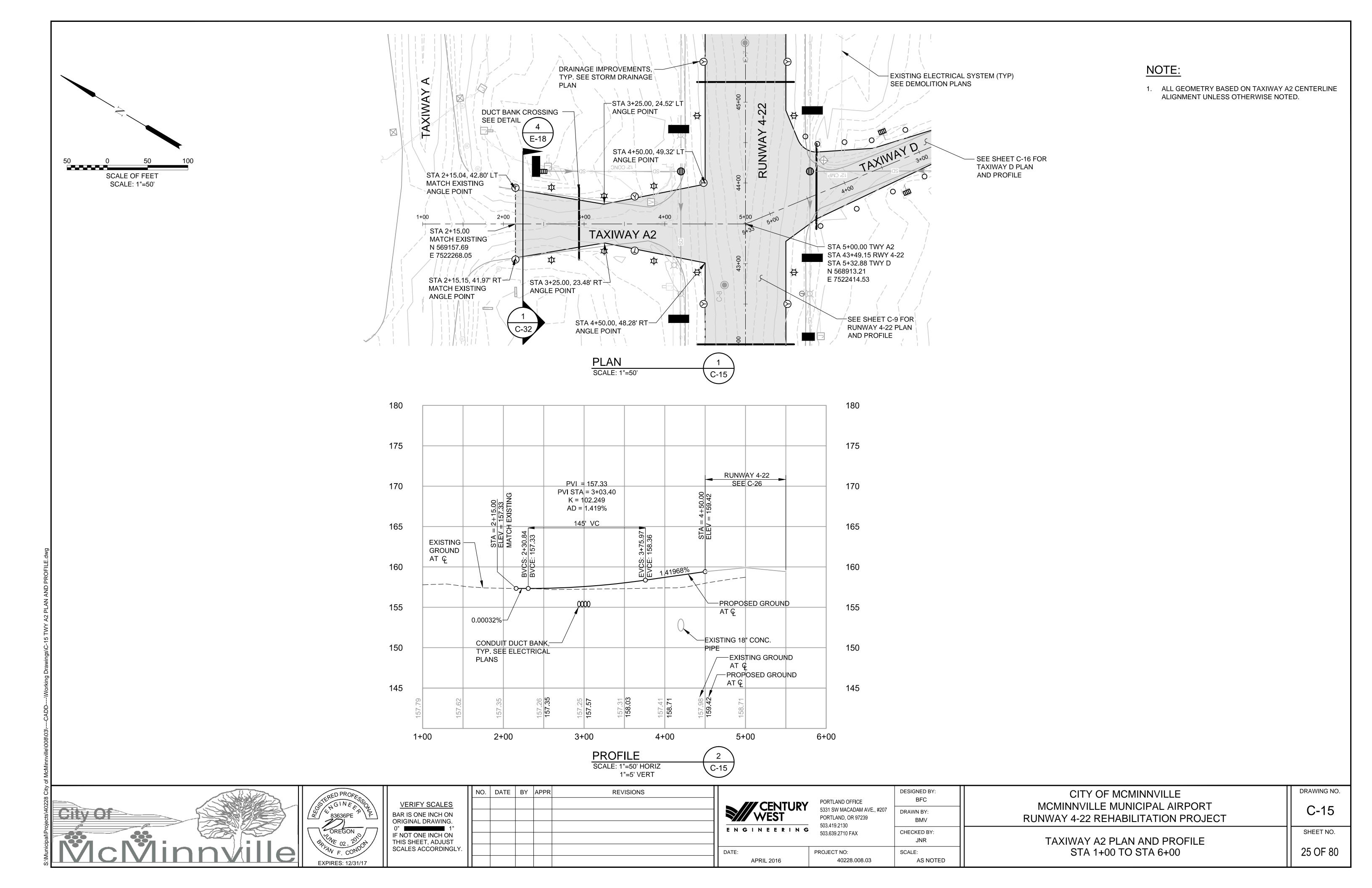
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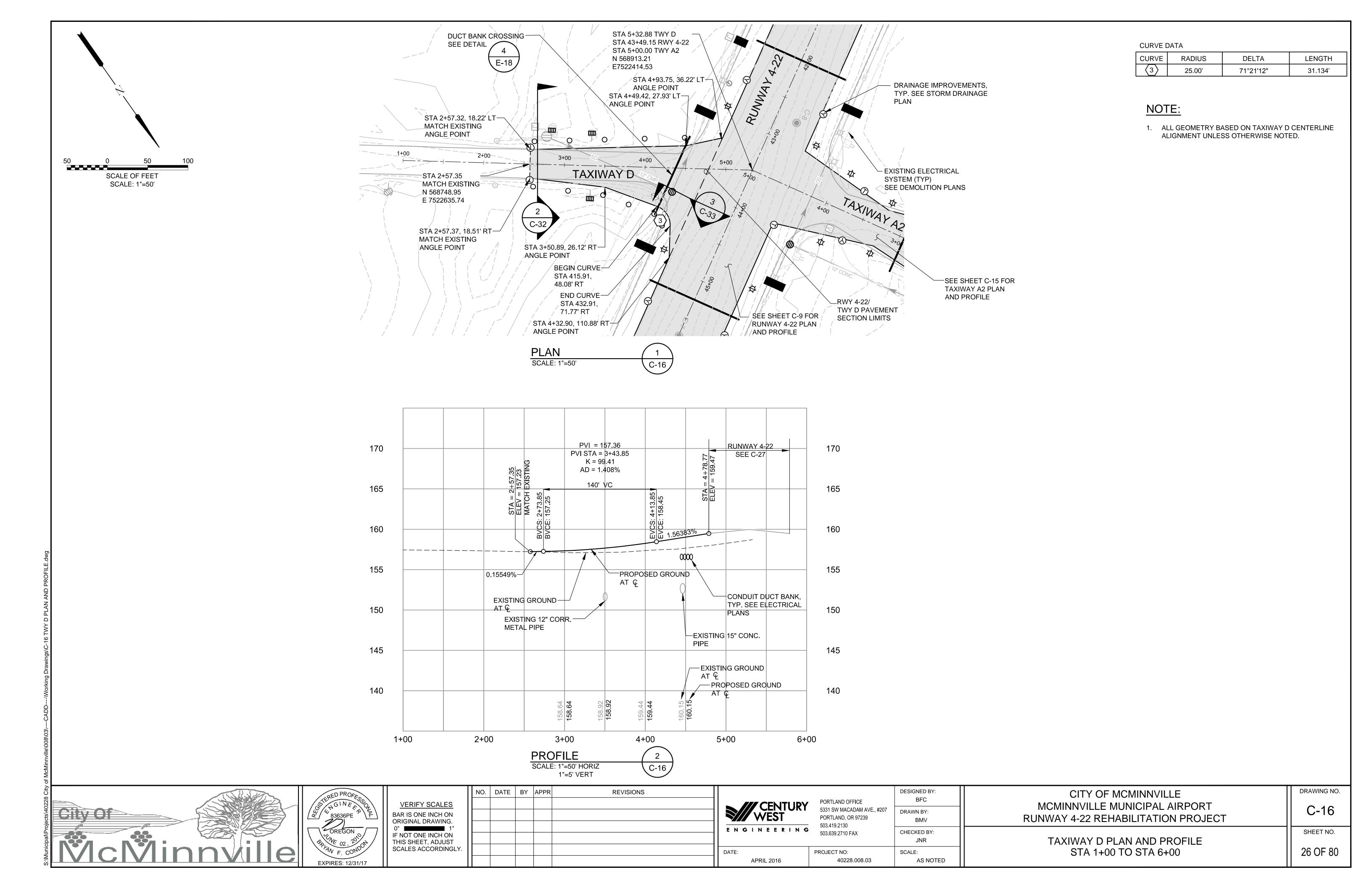
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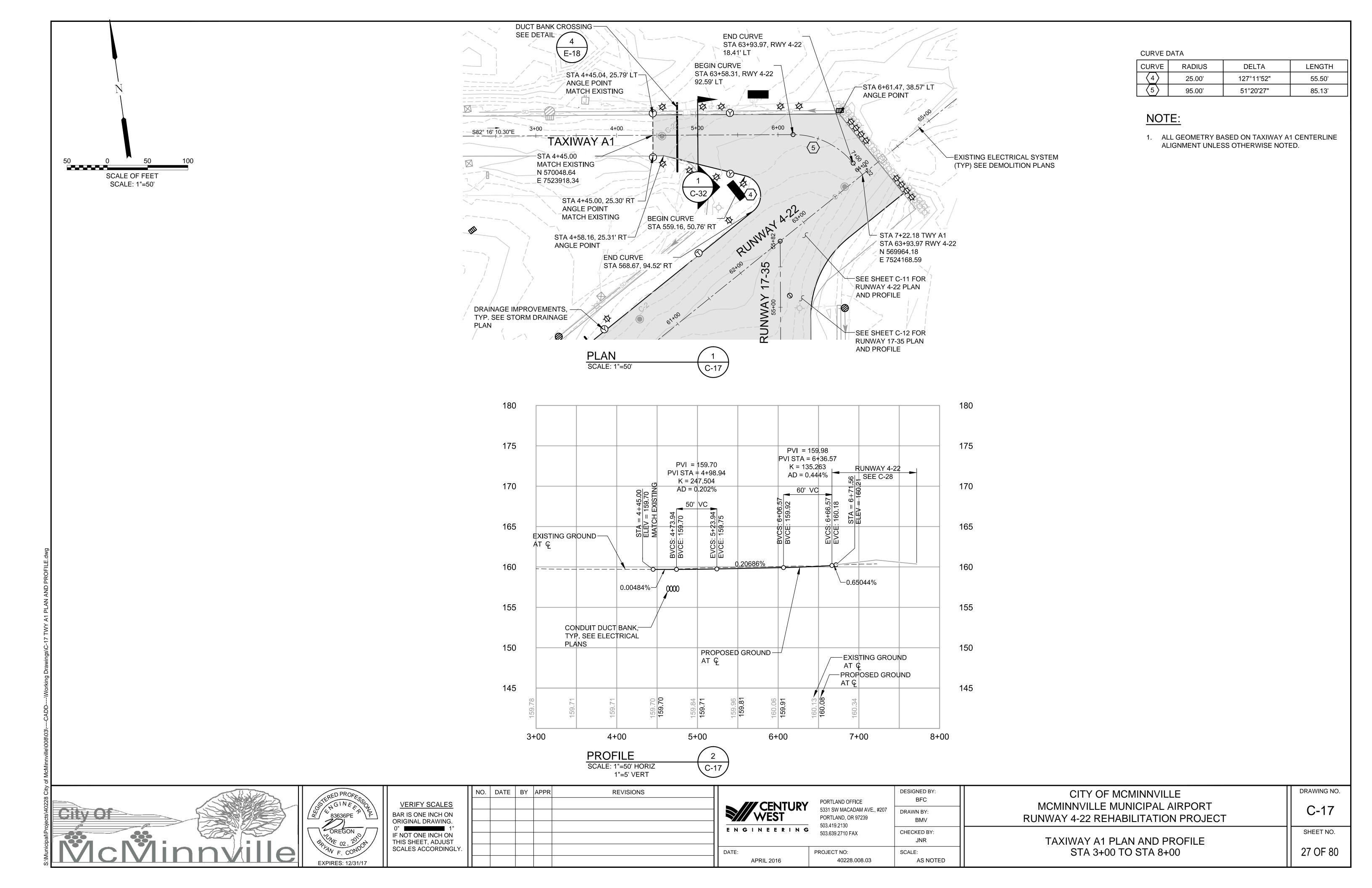
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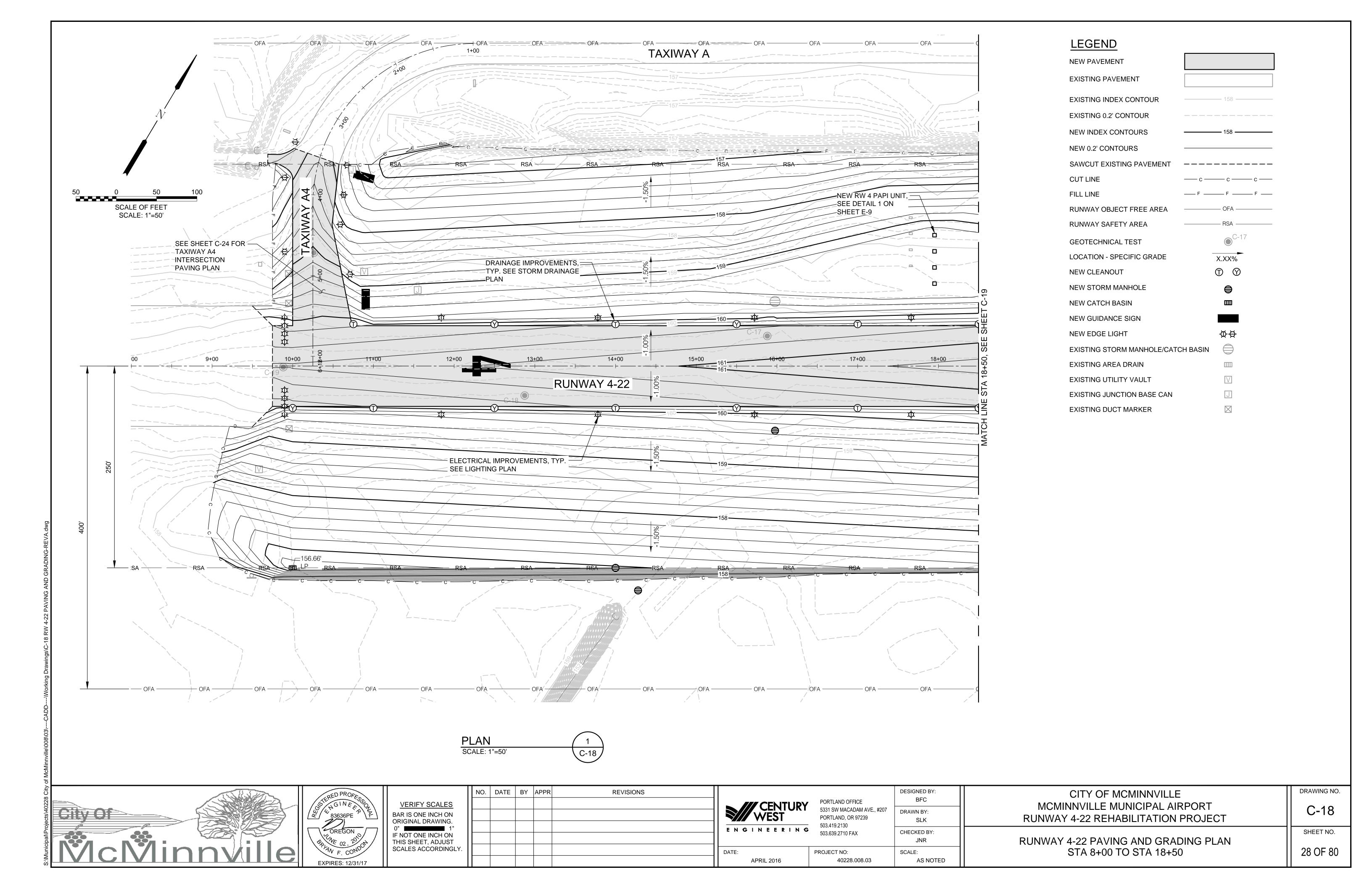


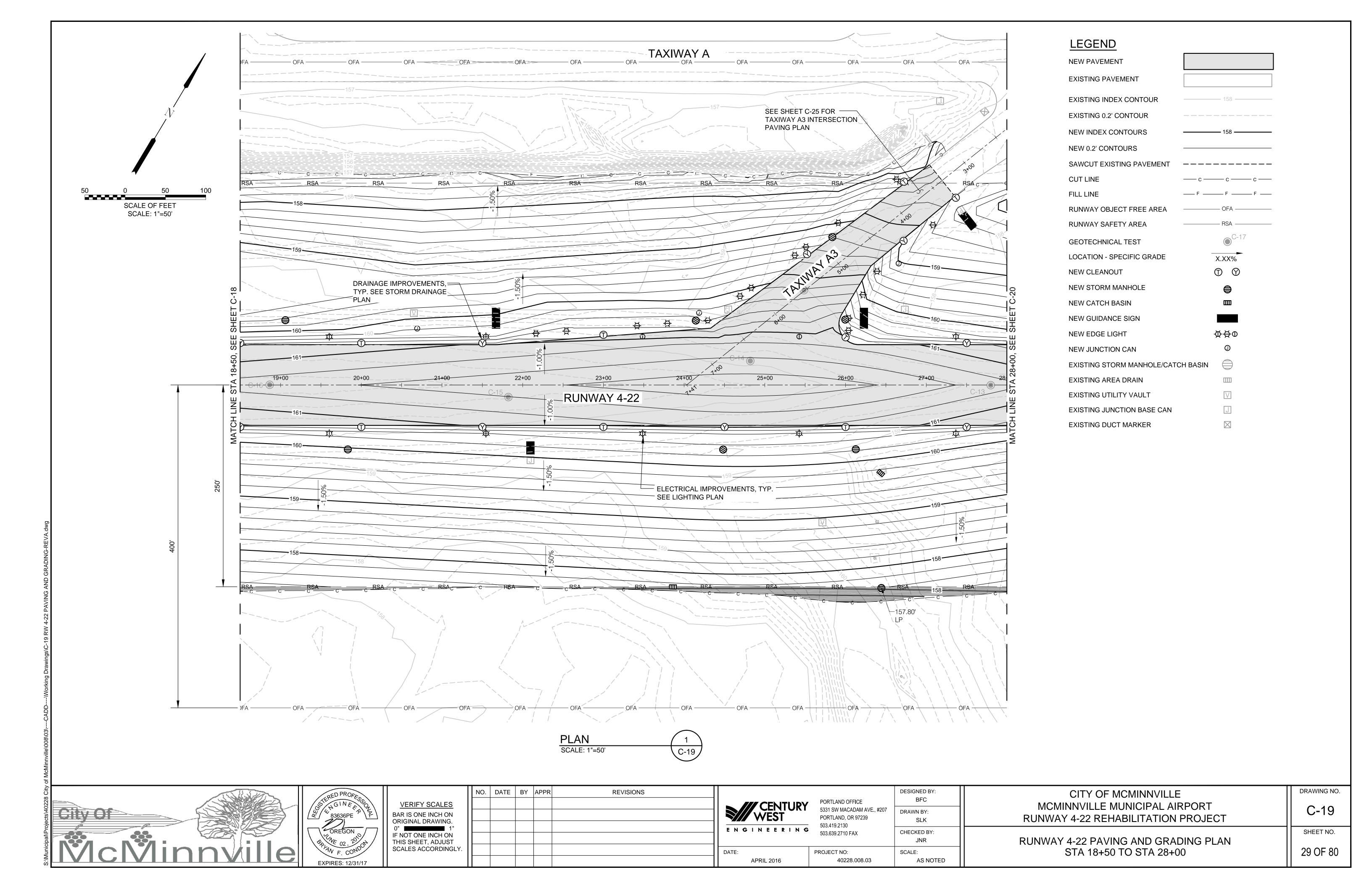


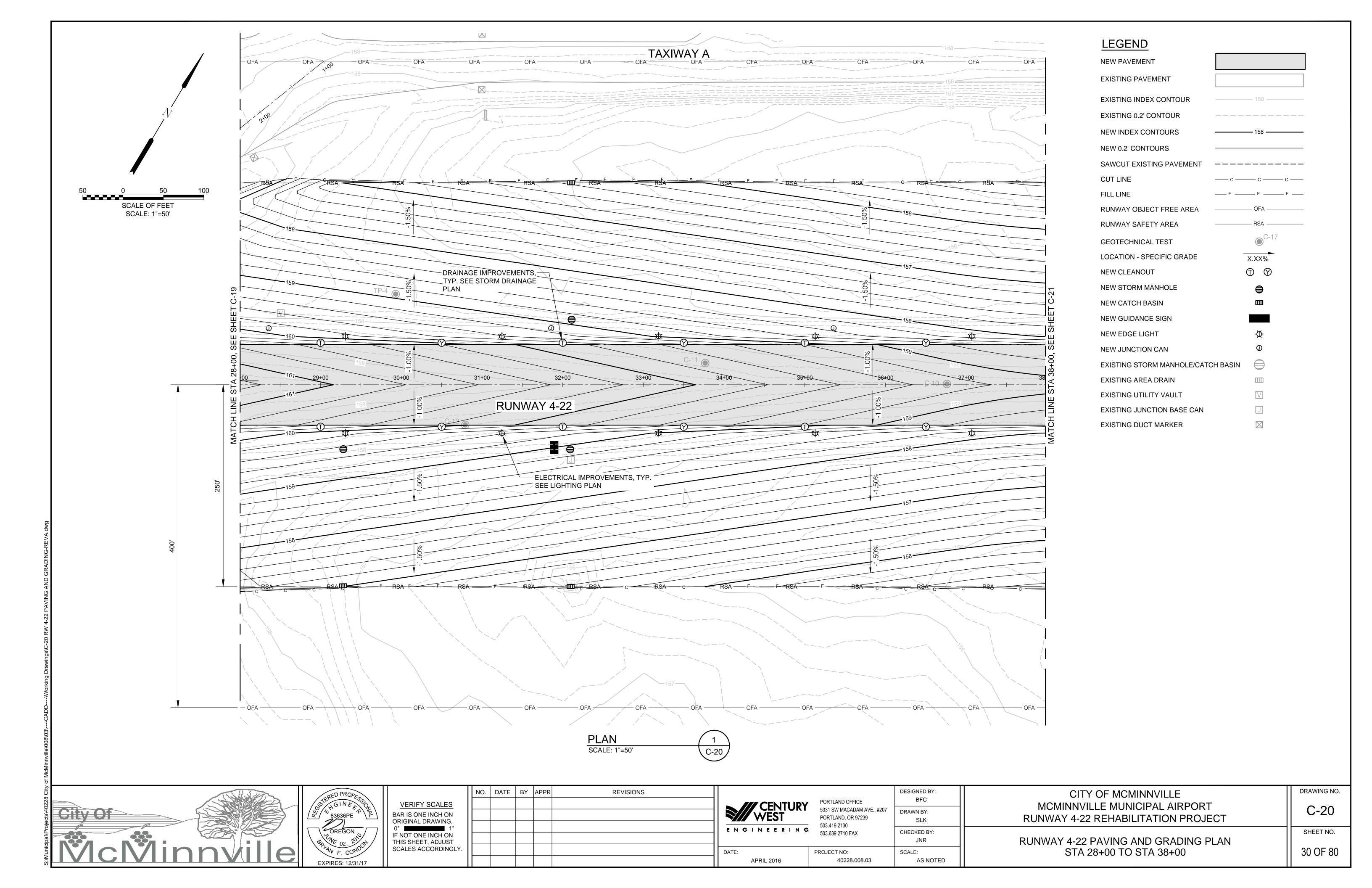


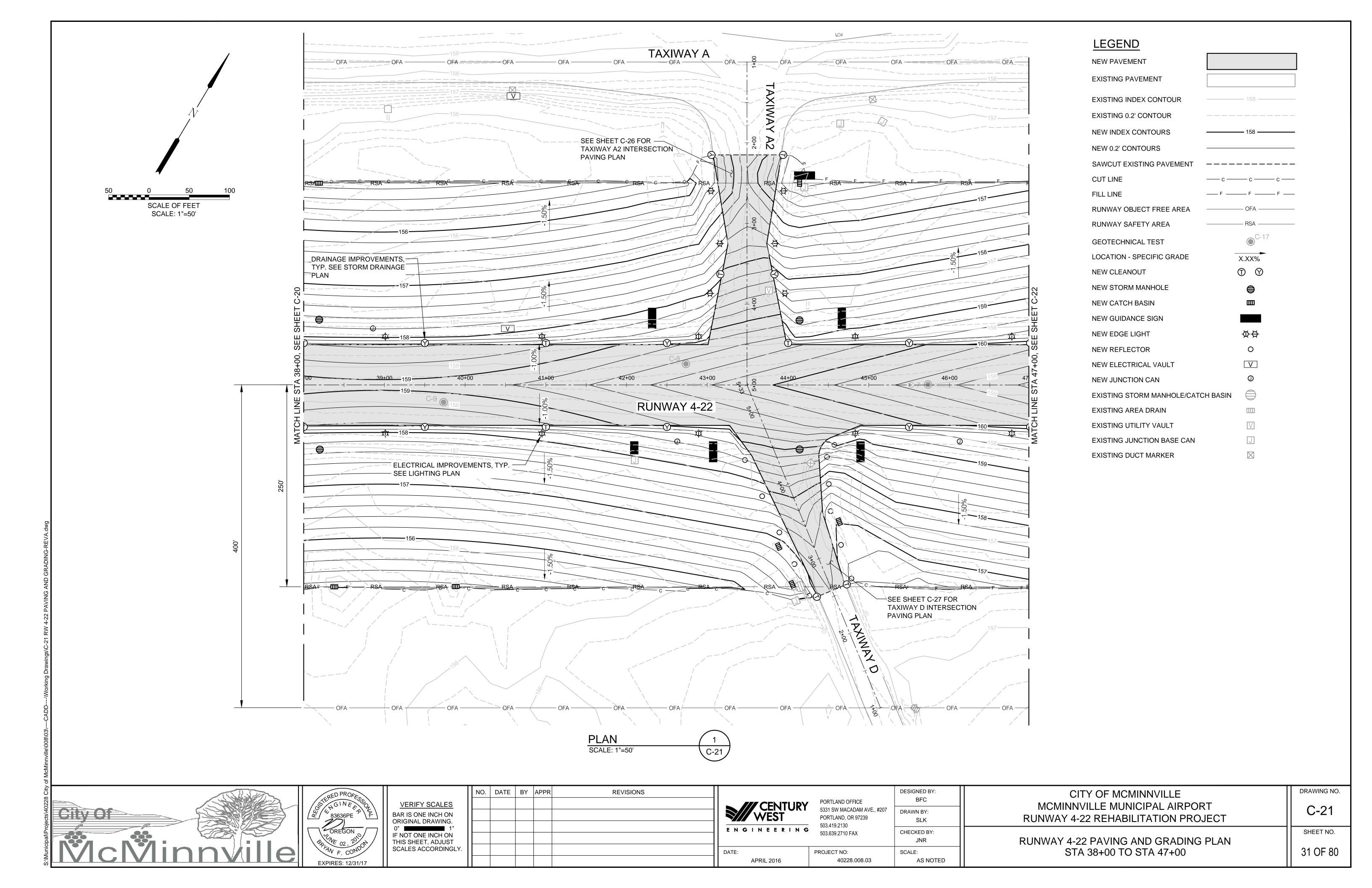


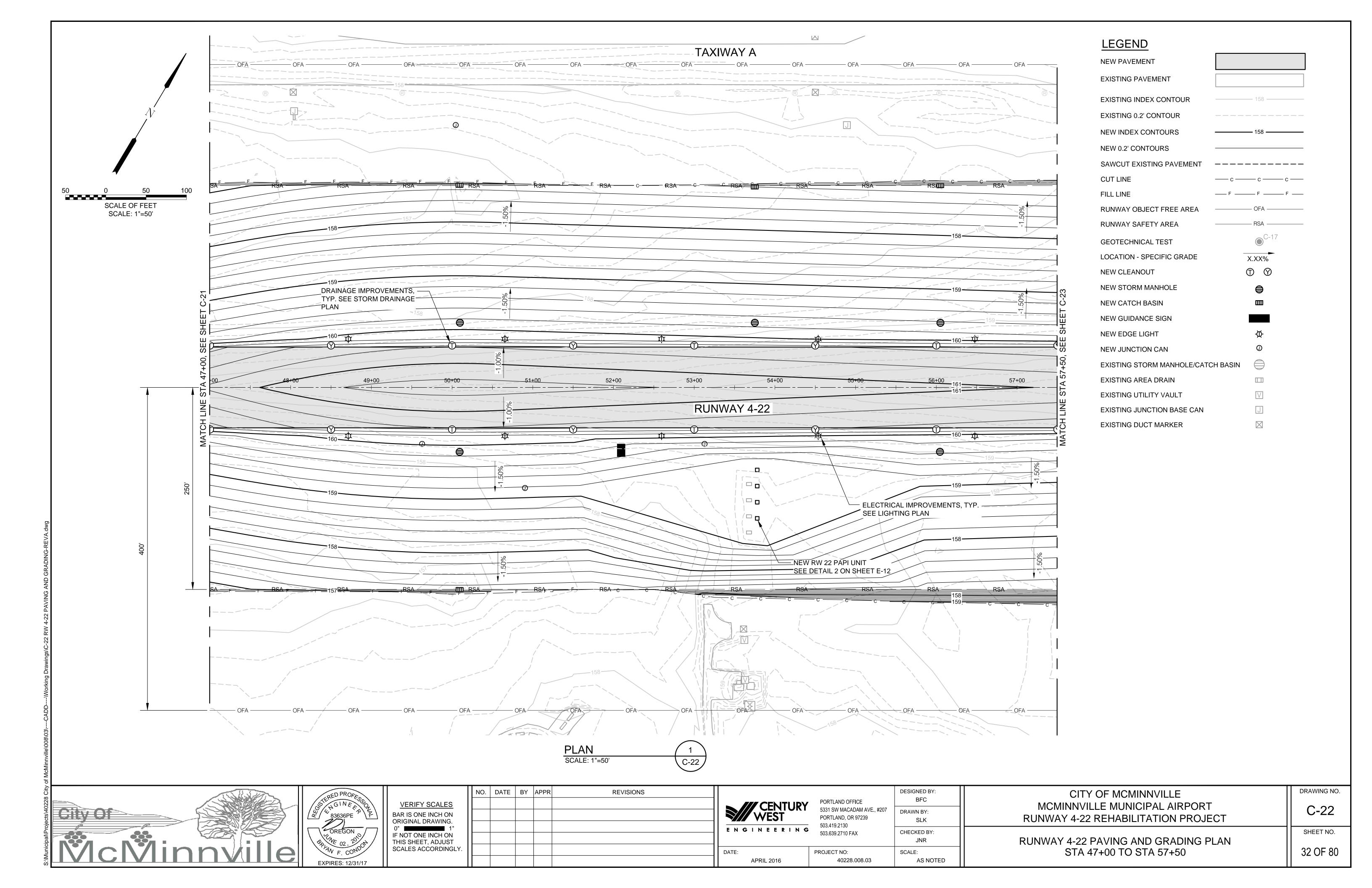


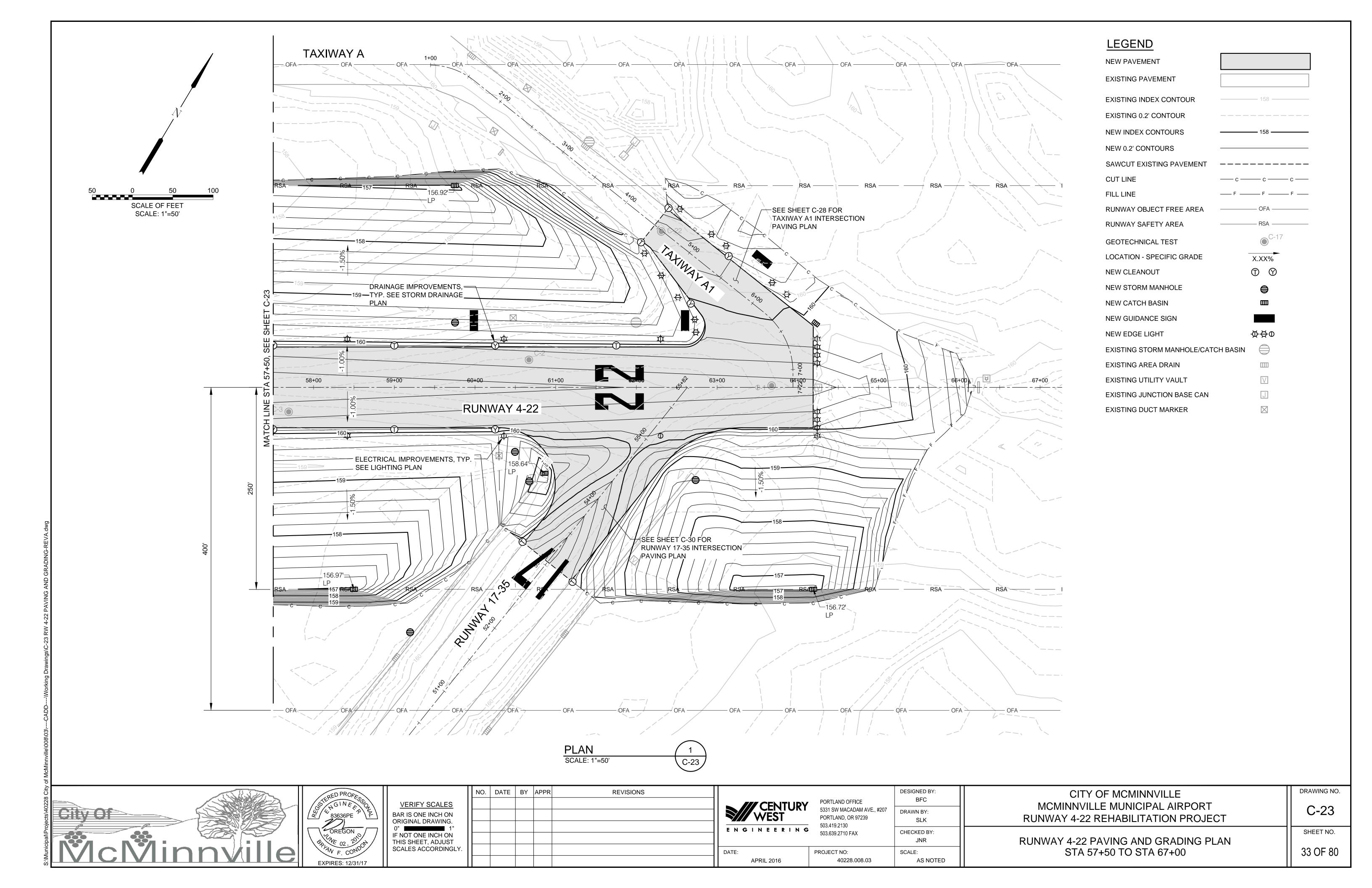


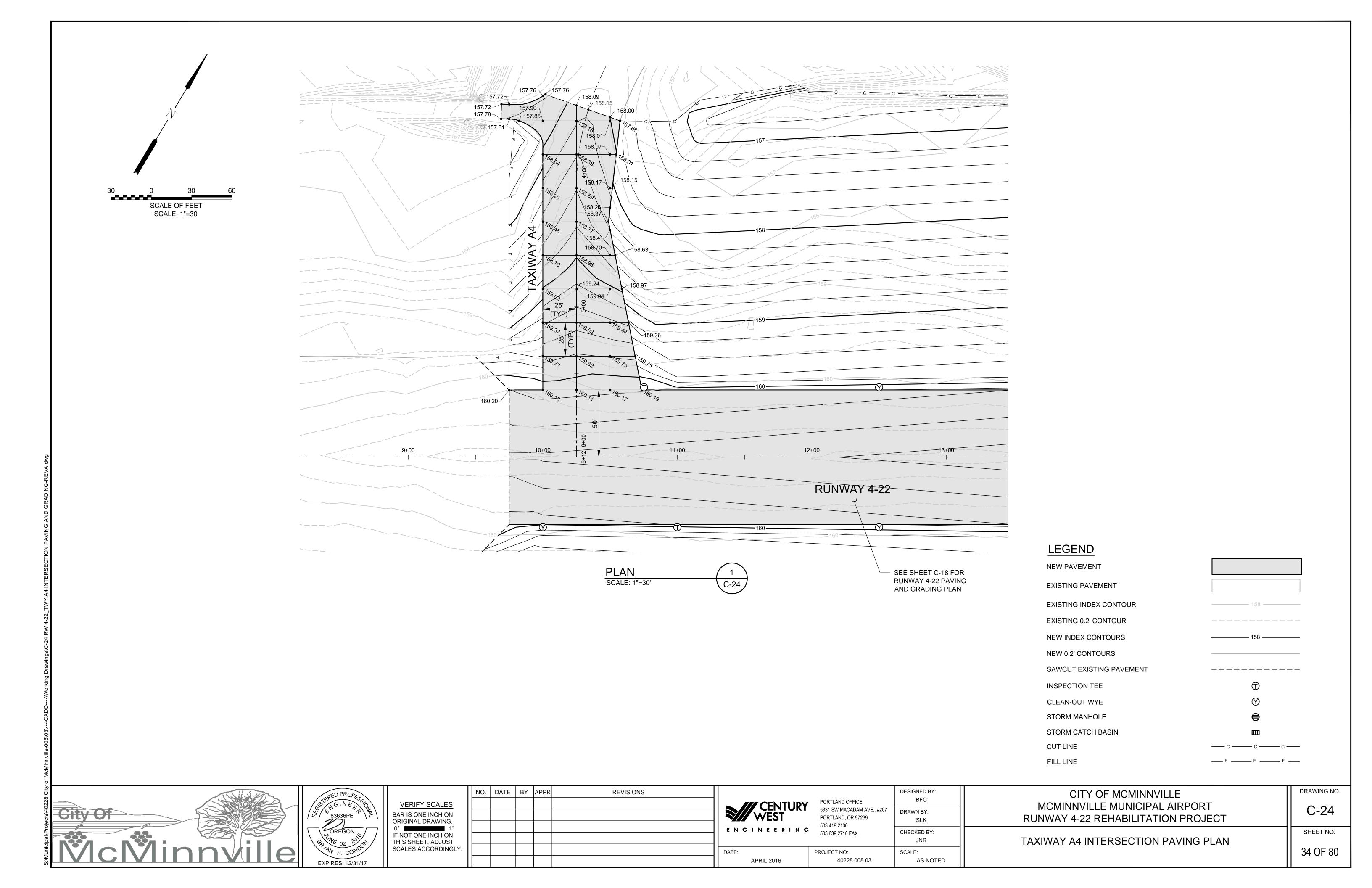


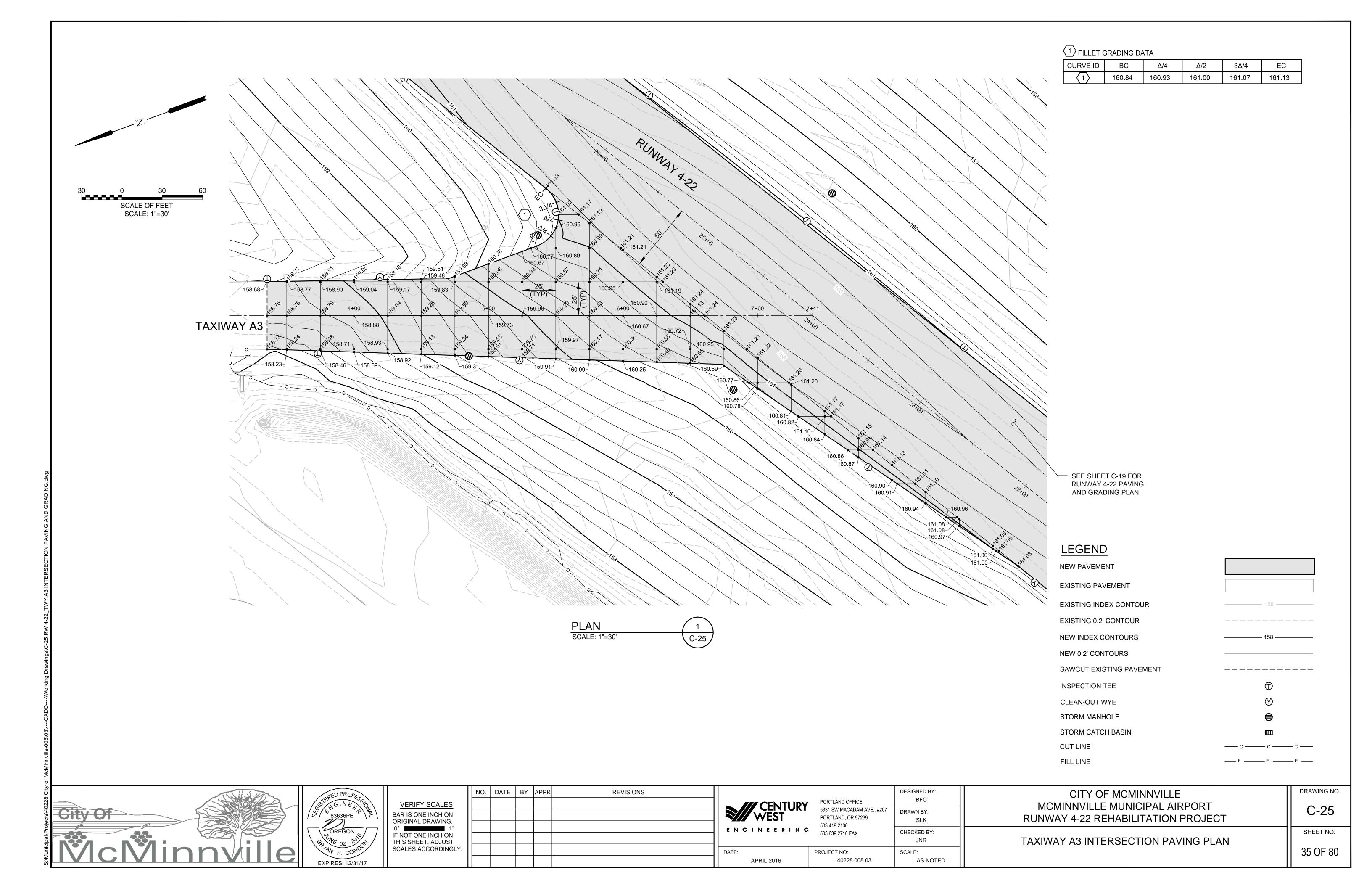


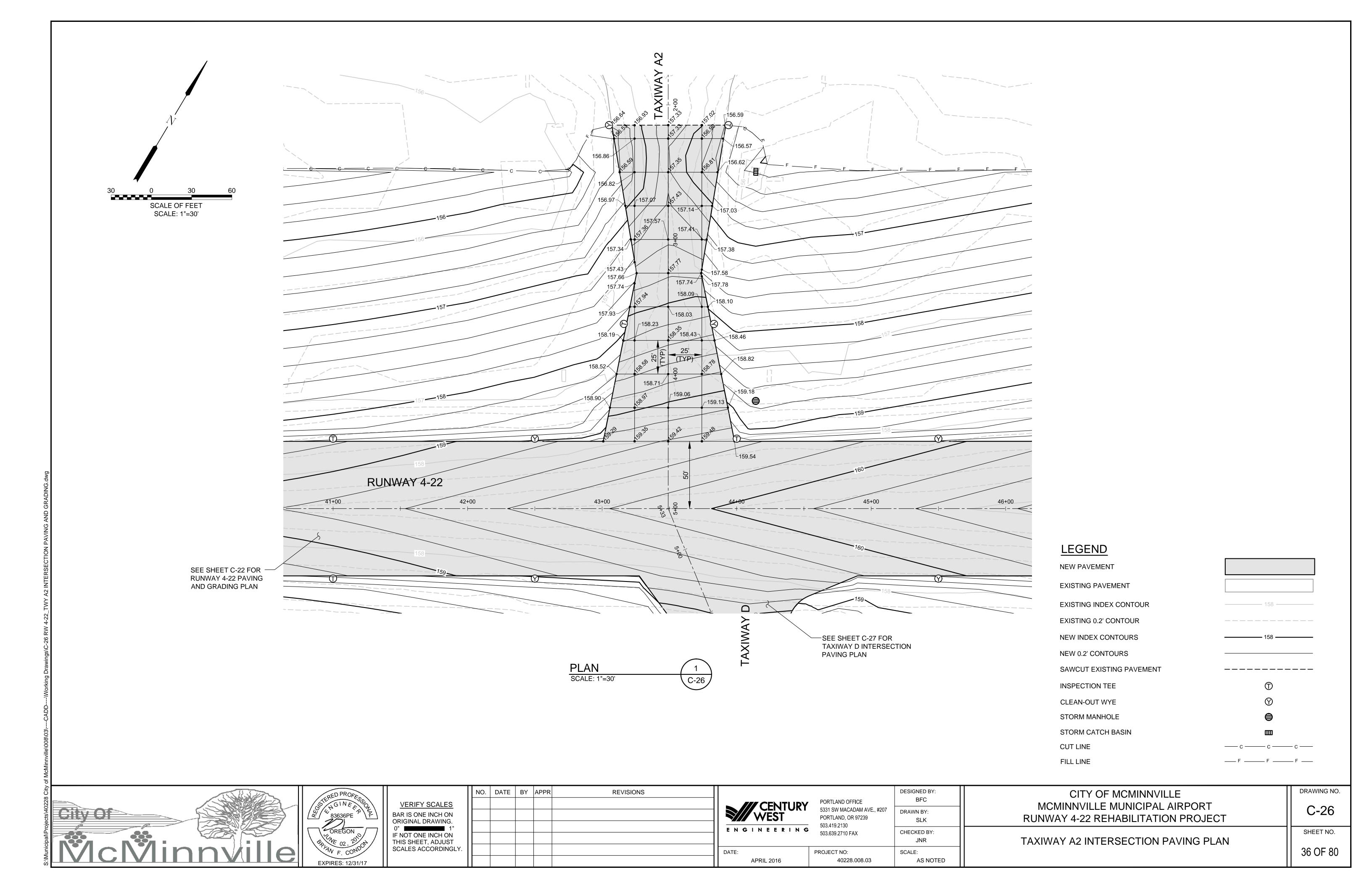


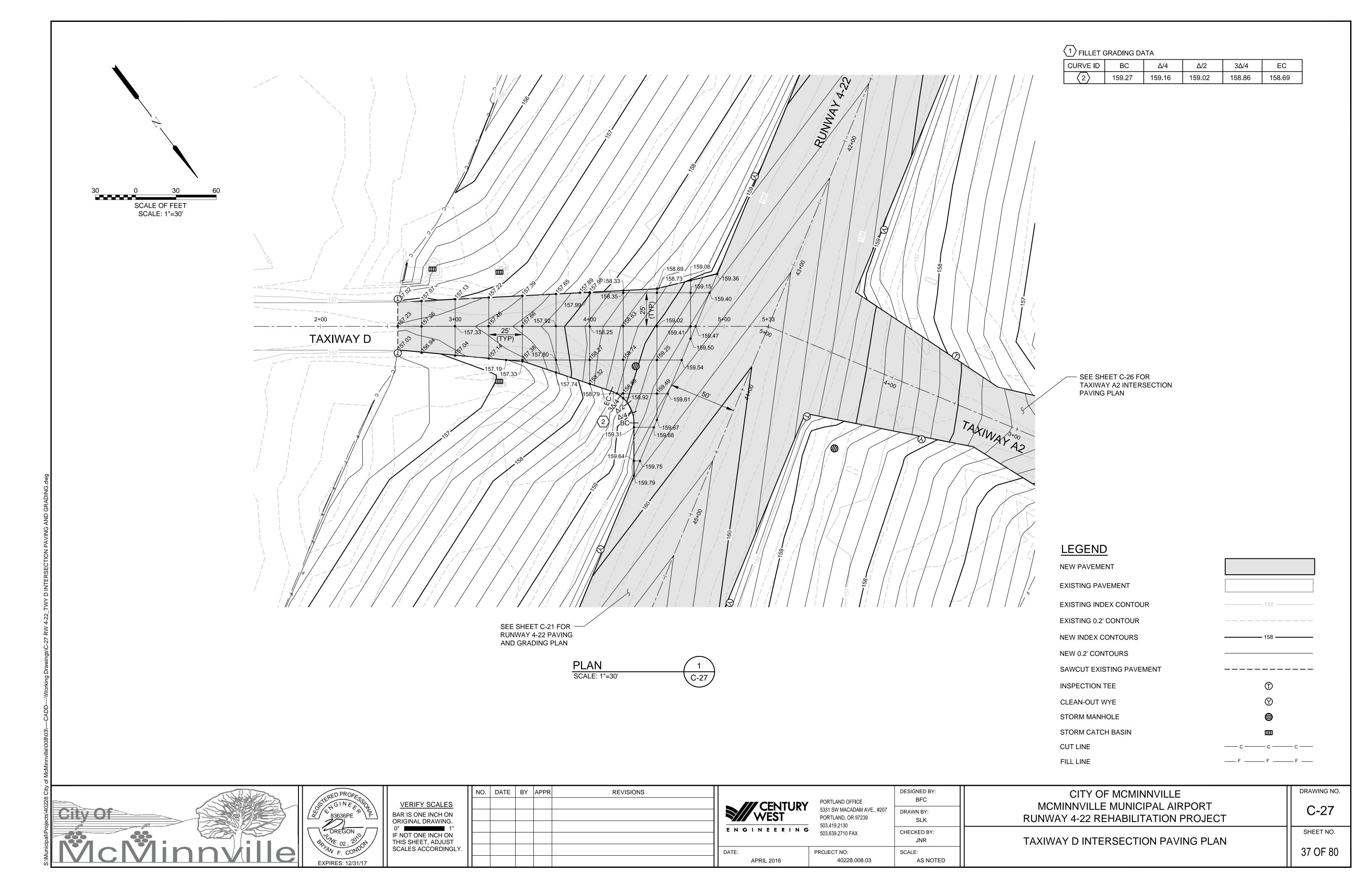


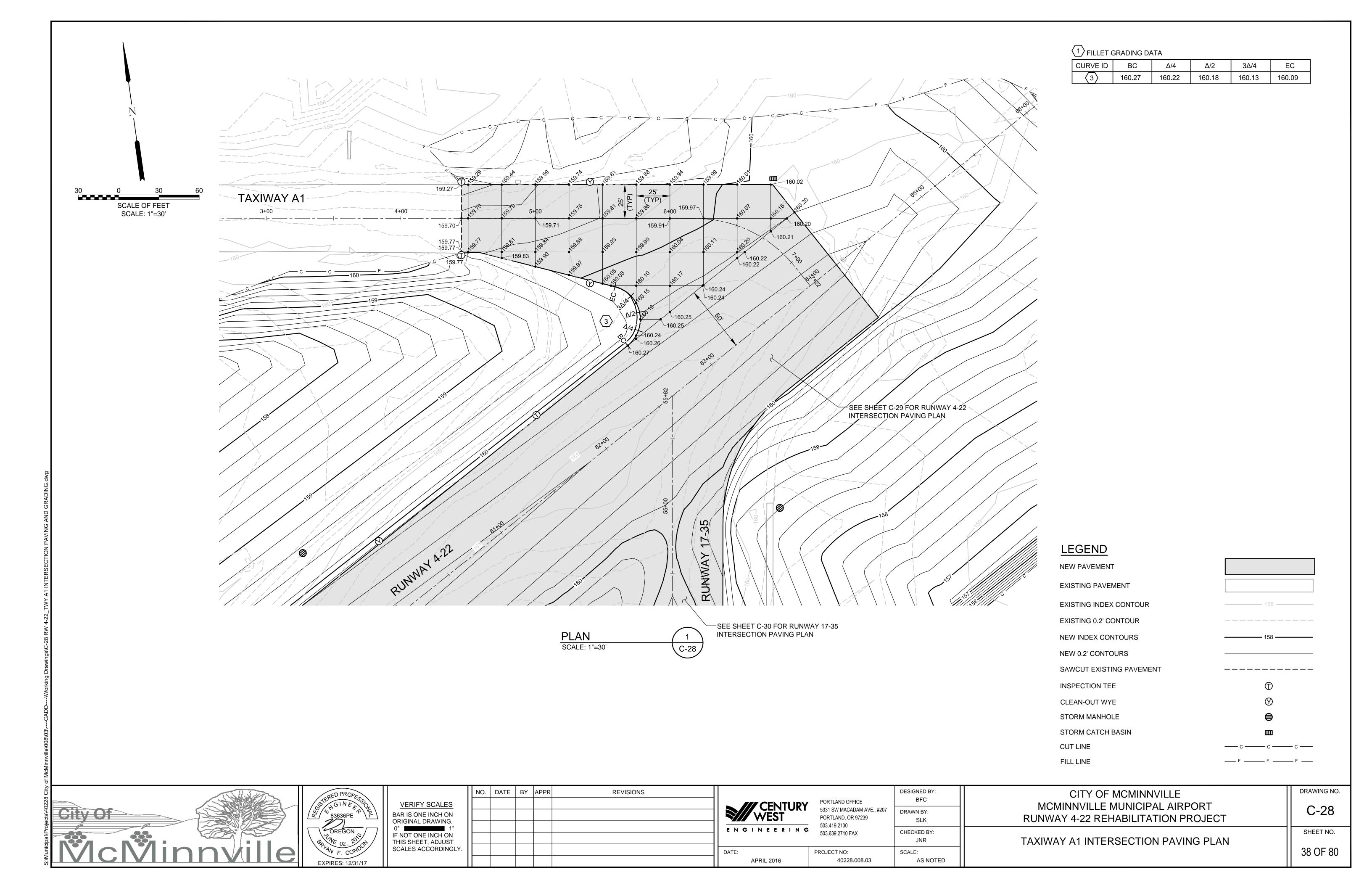


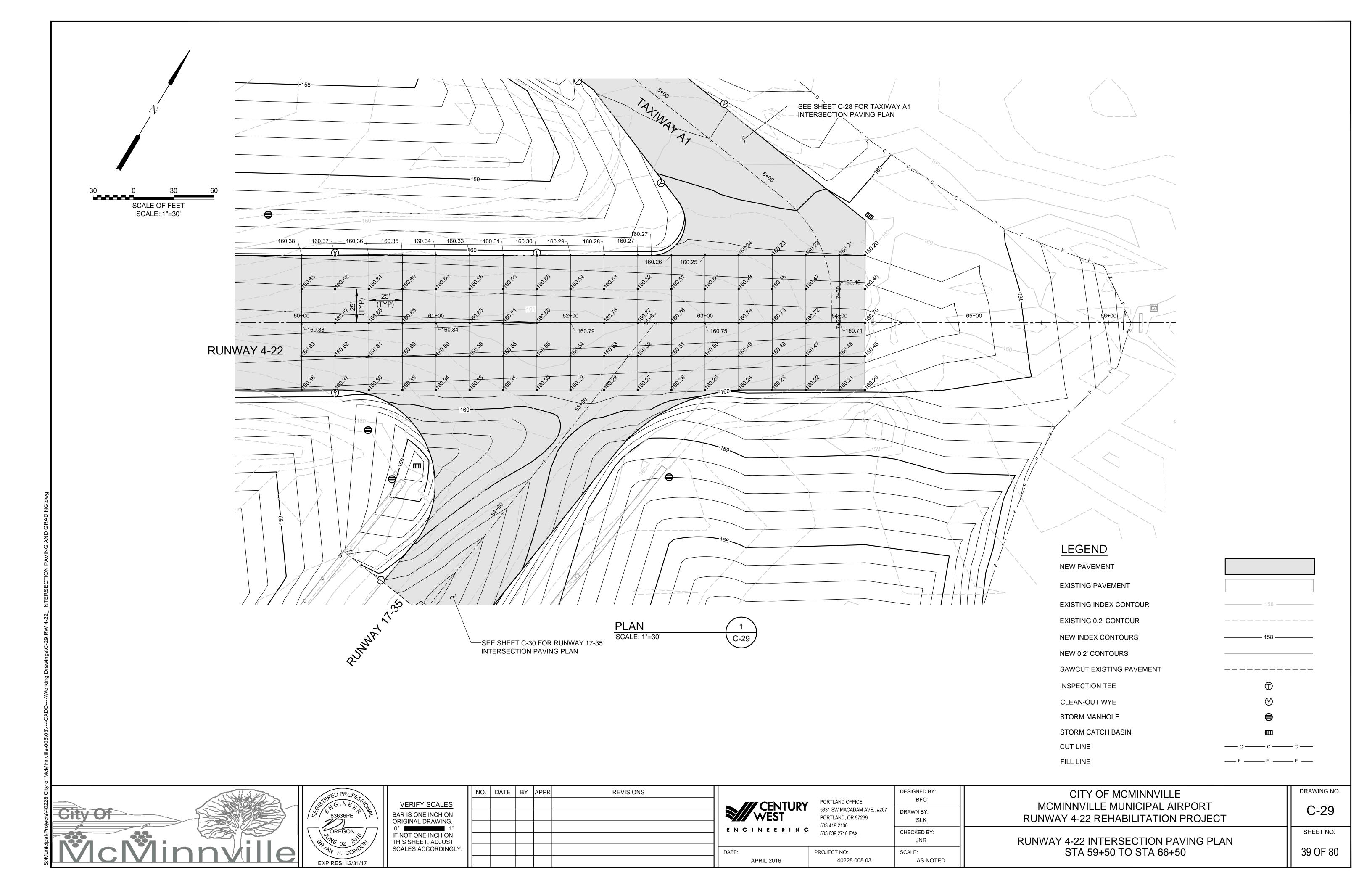


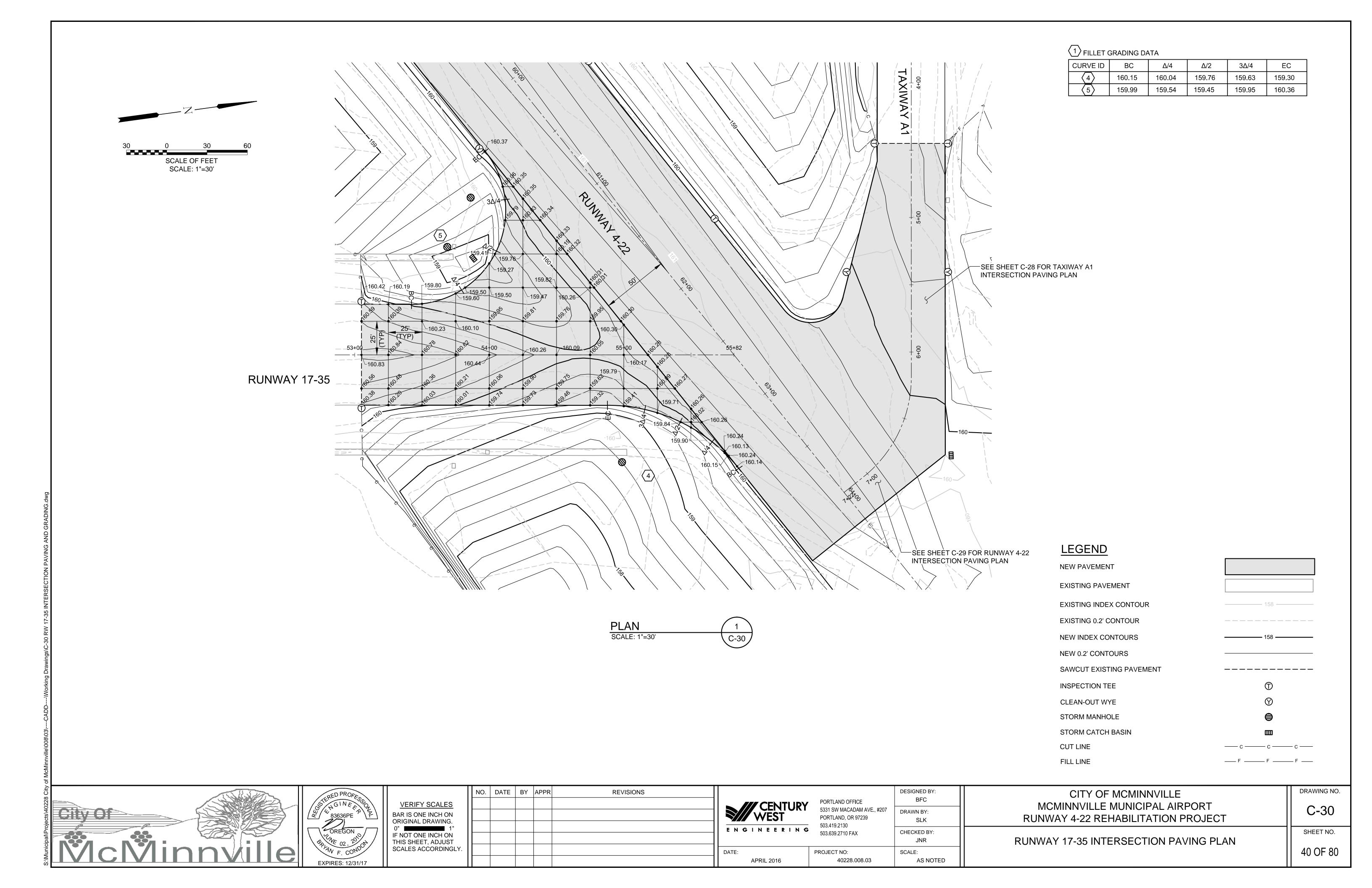


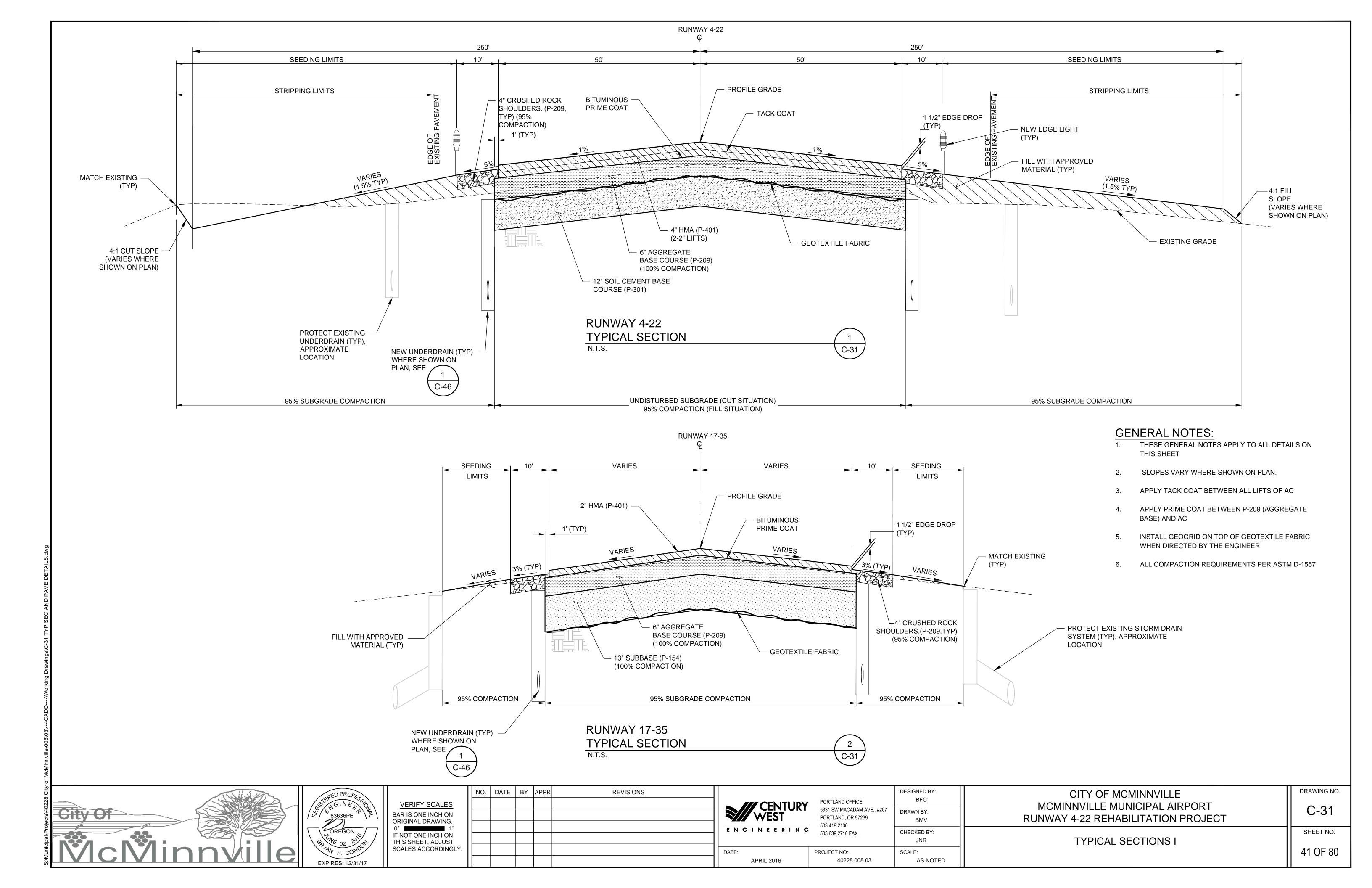


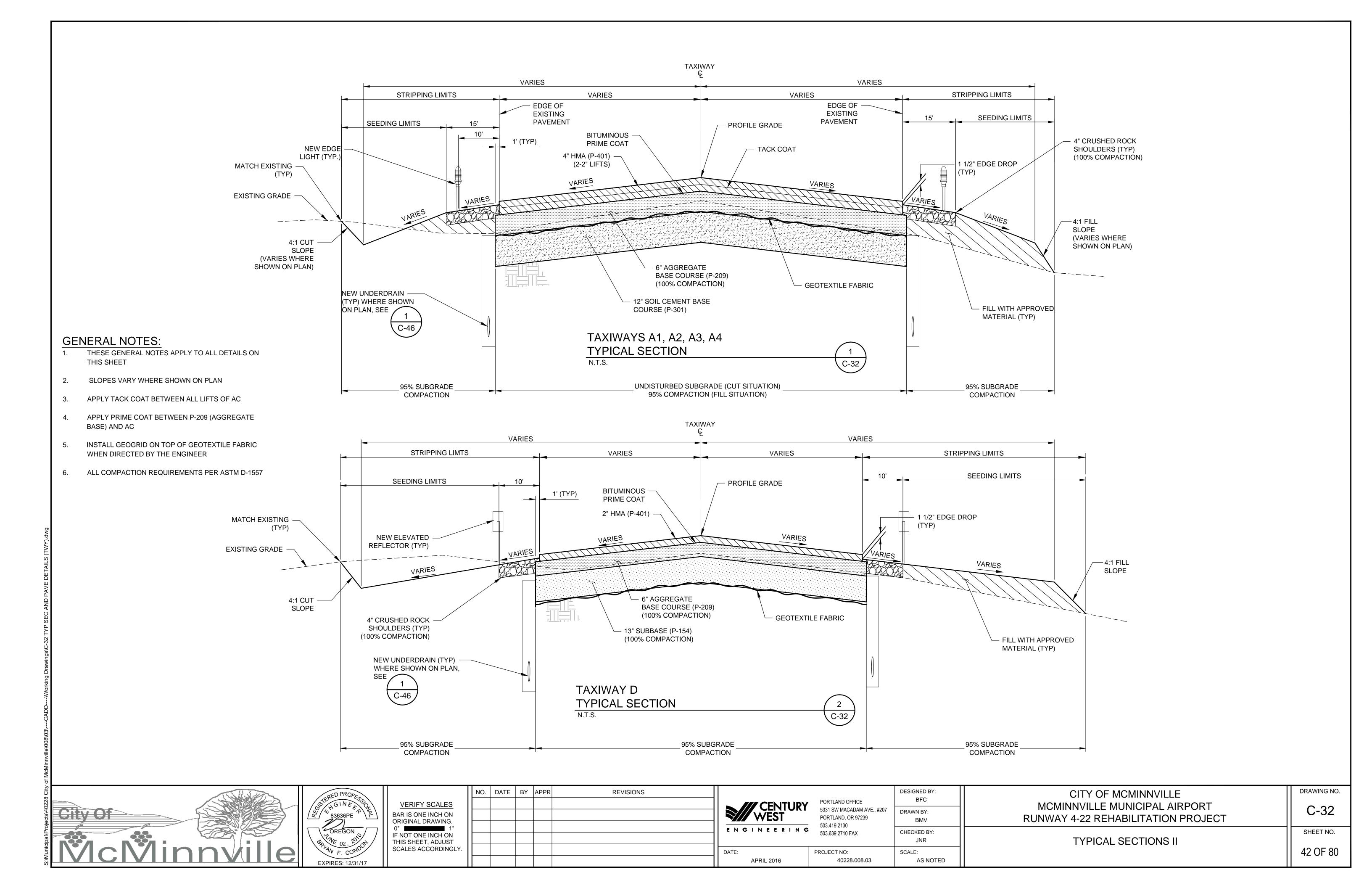


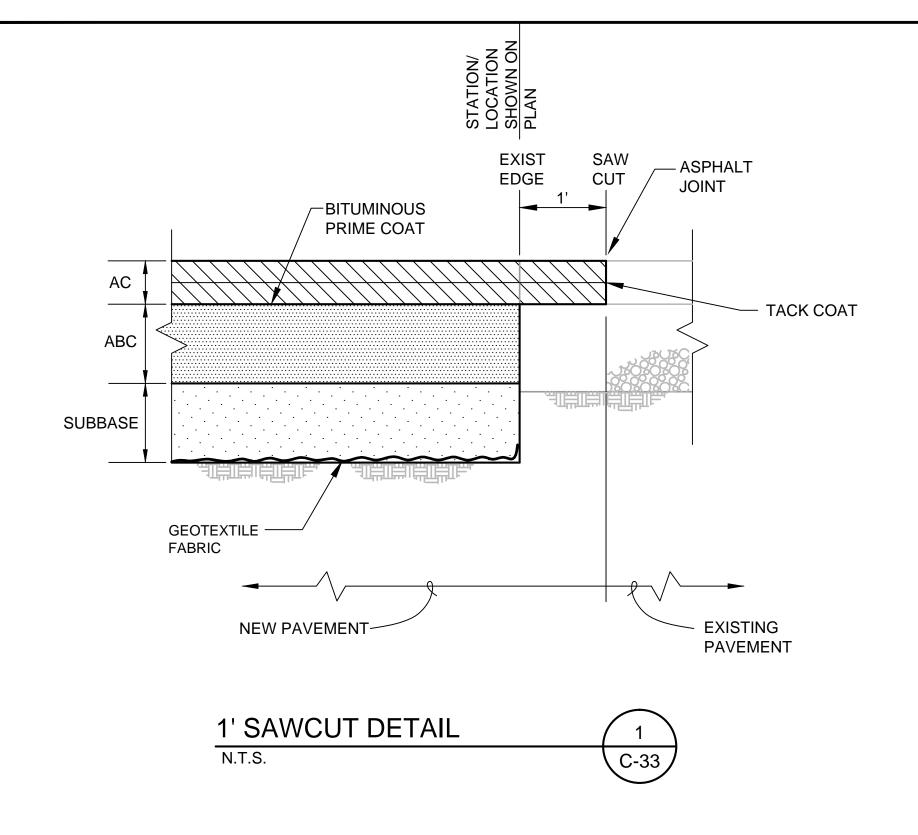


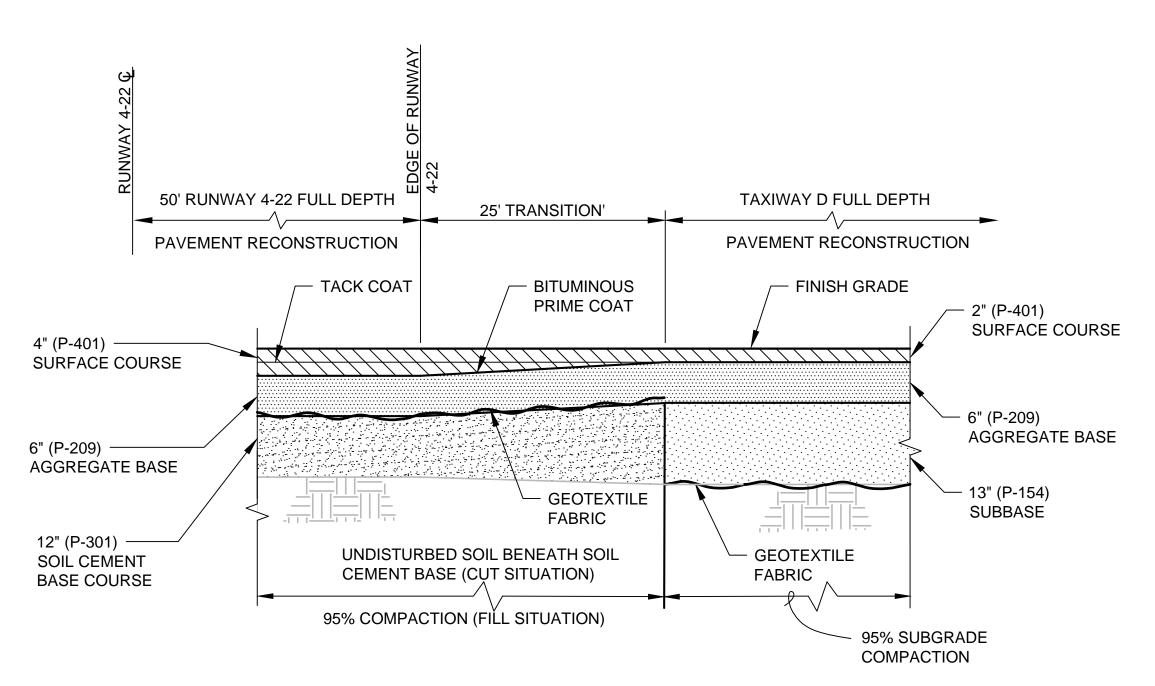






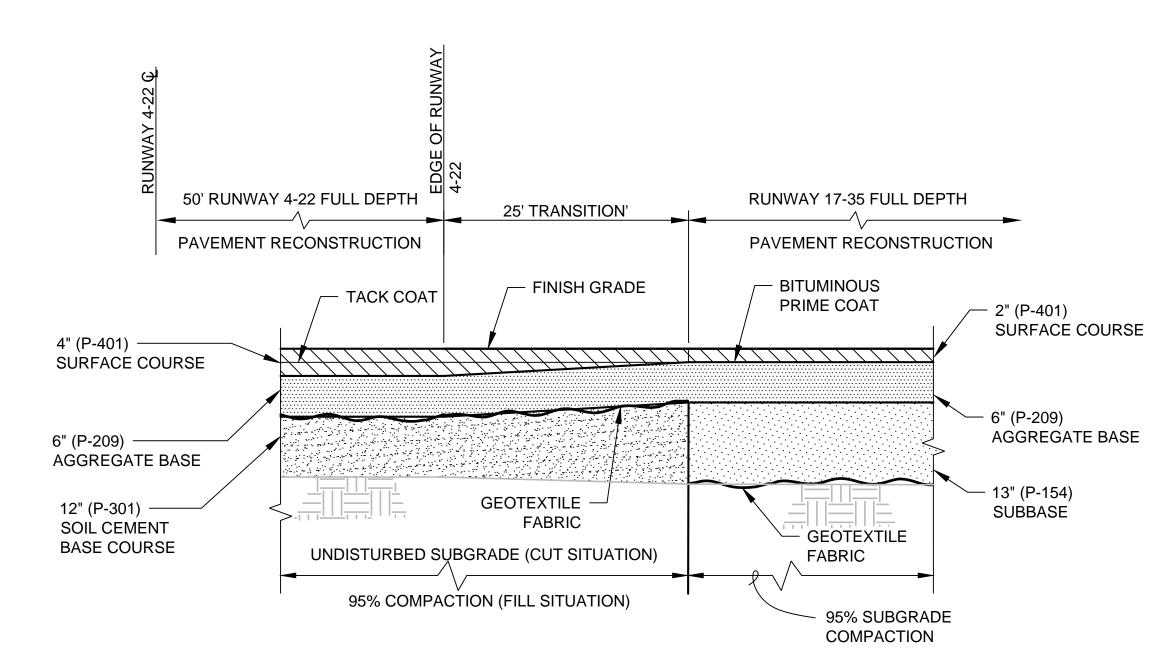






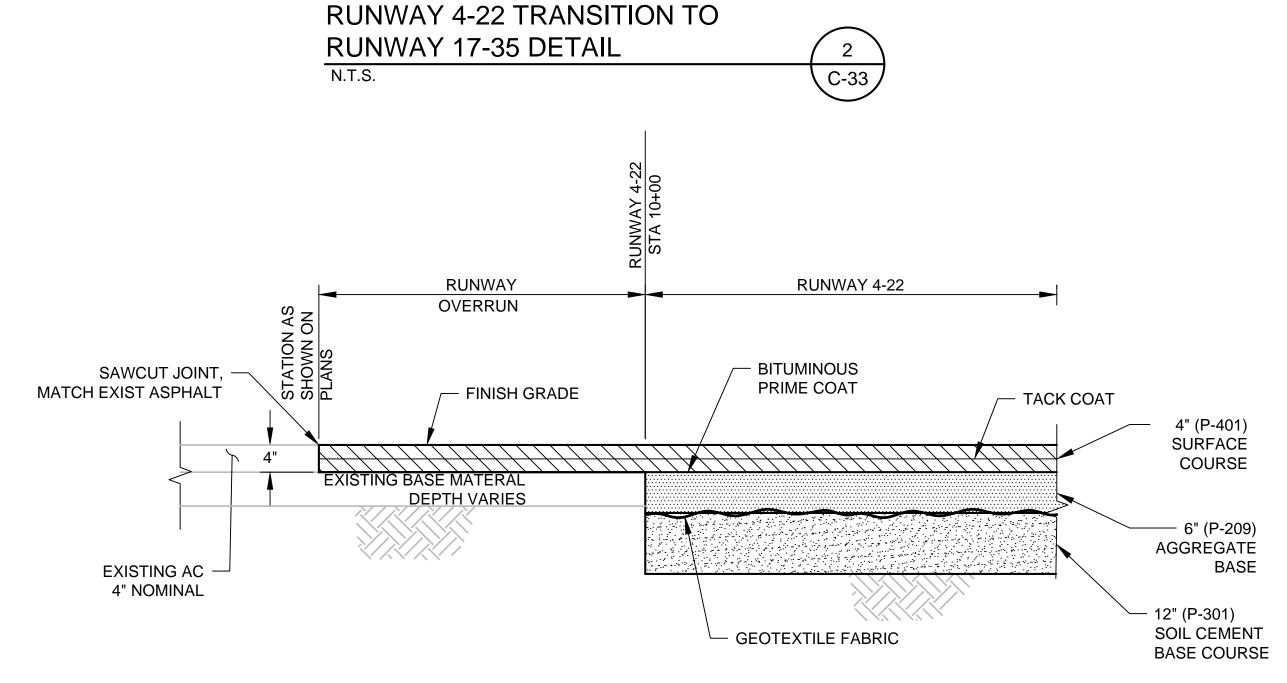
- INSTALL GEOGRID ON TOP OF GEOTEXTILE FABRIC WHEN DIRECTED BY THE ENGINEER
- ALL COMPACTION REQUIREMENTS PER ASTM D-1557





NOTES:

- INSTALL GEOGRID ON TOP OF GEOTEXTILE FABRIC WHEN DIRECTED BY THE ENGINEER
- ALL COMPACTION REQUIREMENTS PER ASTM D-1557



NOTES:

40228.008.03

- INSTALL GEOGRID ON TOP OF GEOTEXTILE FABRIC WHEN DIRECTED BY THE ENGINEER
- ALL COMPACTION REQUIREMENTS PER **ASTM D-1557**

DESIGNED BY: BFC

BMV

AS NOTED

CHECKED BY: JNR

SCALE:

DRAWN BY:

RUNWAY 4-22	
TRANSITION TO OVERRUN	4
N.T.S.	C-33





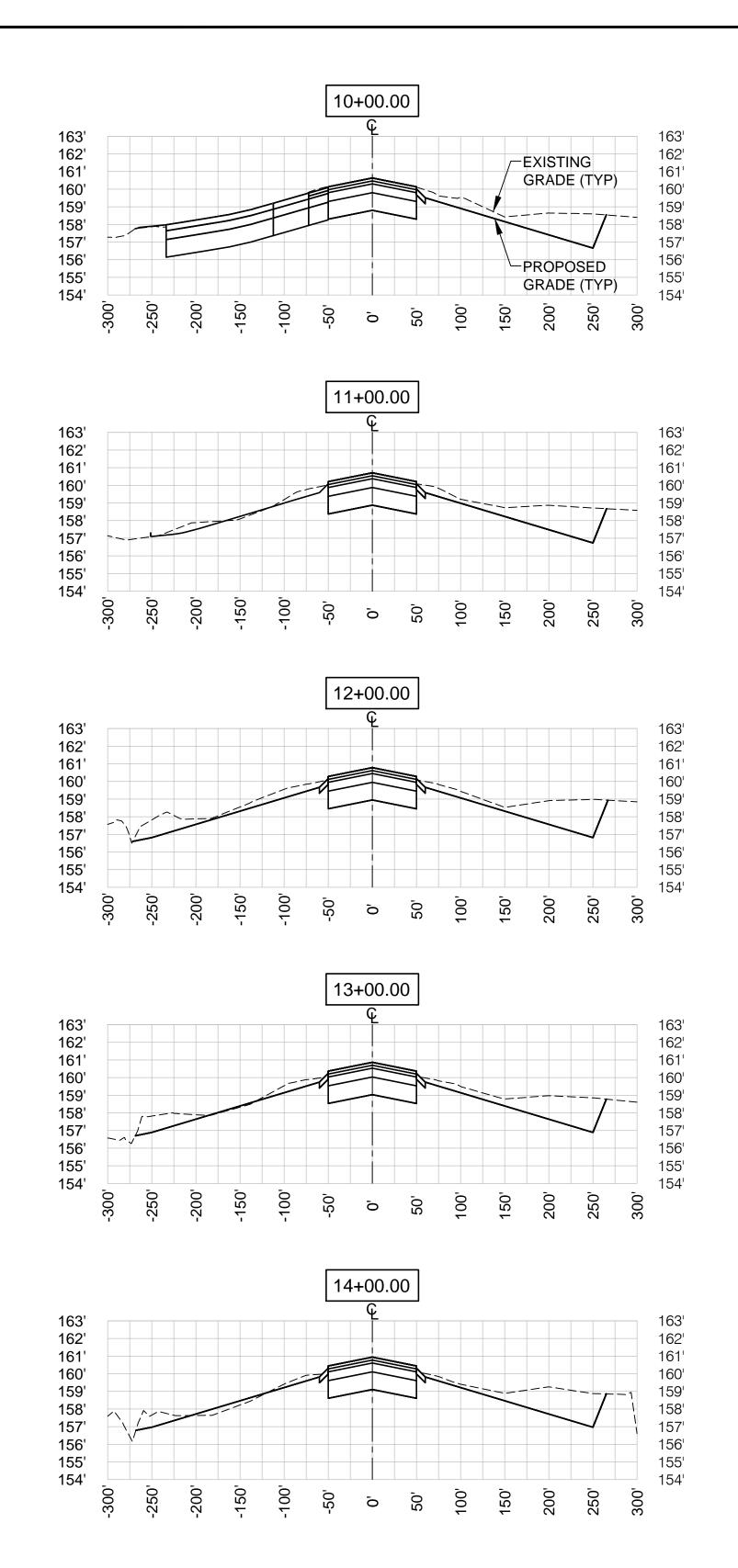
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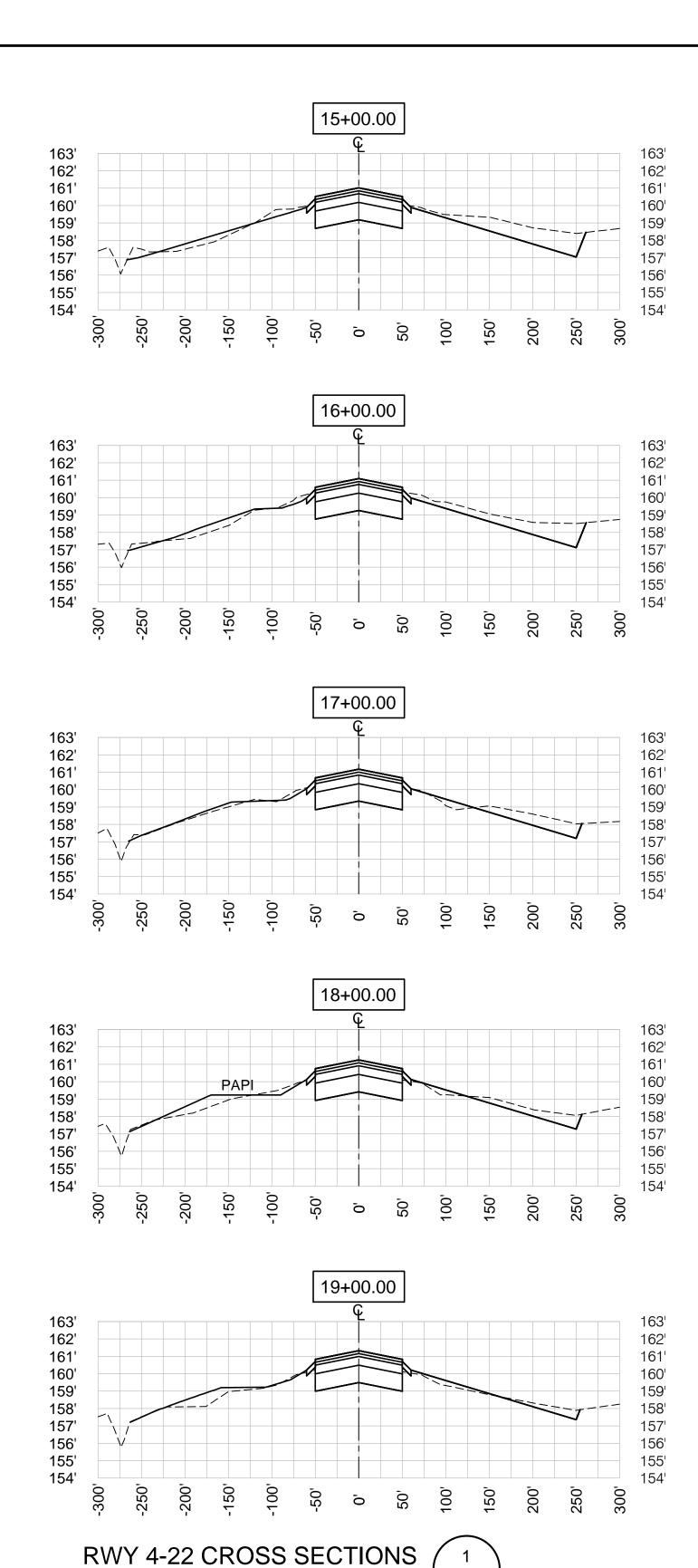
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	NO.	NO. DATE	NO. DATE BY	NO. DATE BY APPR

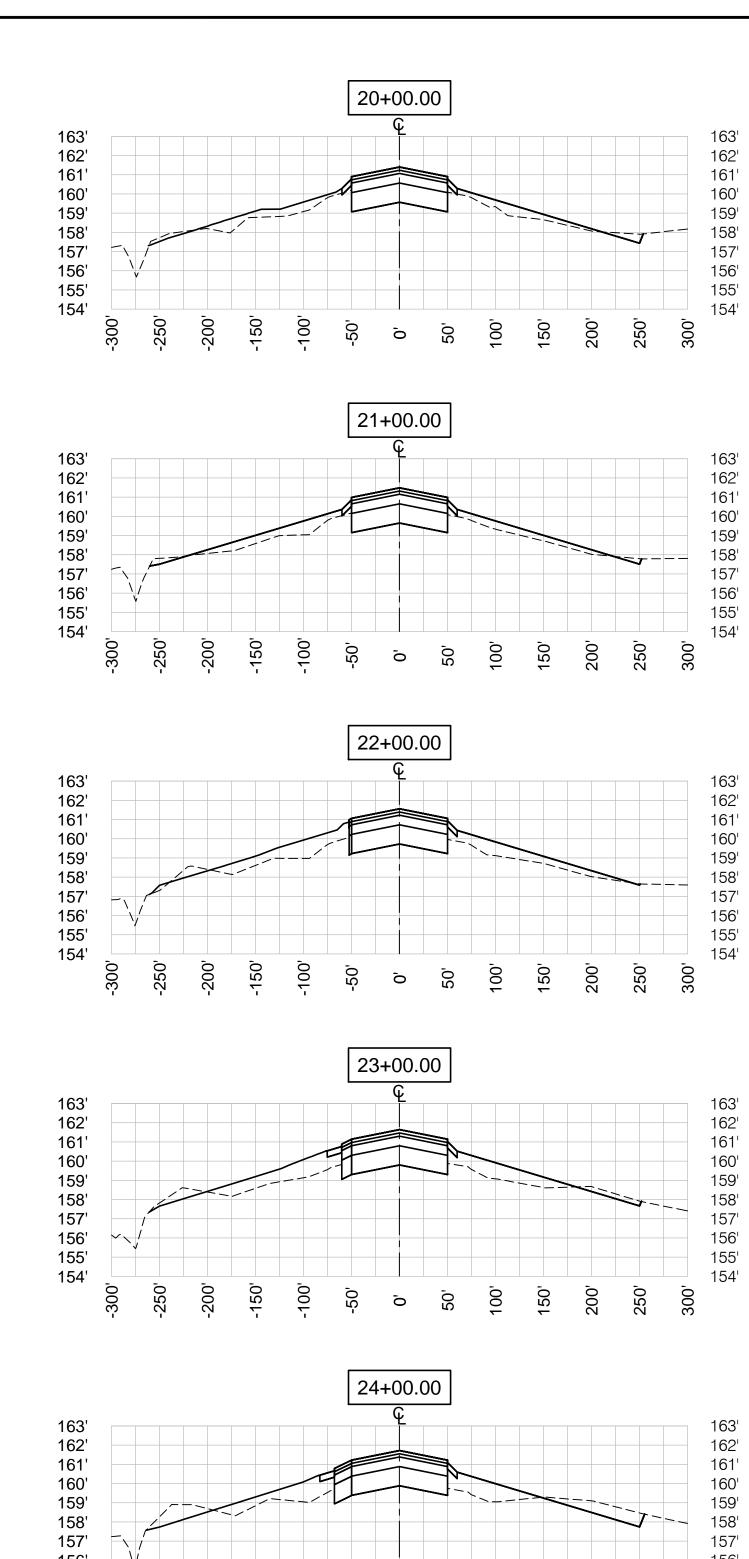
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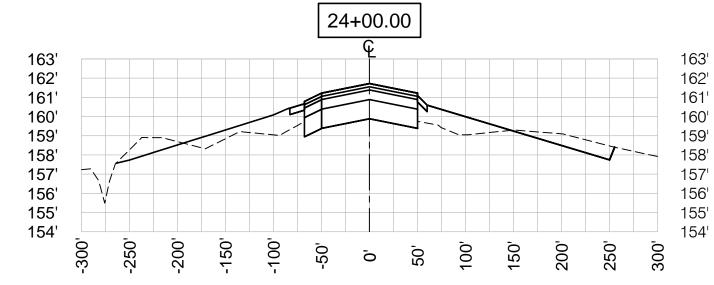
APRIL 2016

CITY OF MCMINNVILLE	DRAWING NO.
MCMINNVILLE MUNICIPAL AIRPORT RUNWAY 4-22 REHABILITATION PROJECT	C-33
DAVENIENT DETAIL O	SHEET NO.
PAVEMENT DETAILS	43 OF 80









- 1. SEE SHEET C-31 FOR TYPICAL RUNWAY 4-22 SECTION.
- 2. UNDERDRAINS NOT SHOWN (TYPICAL).





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APRIL 2016

C-34

PORTLAND OFFICE 5331 SW MACADAM AVE., #207 PORTLAND, OR 97239 503.419.2130 503.639.2710 FAX	DESIGNED BY: BFC DRAWN BY: SLK CHECKED BY:
0001000121101700	JNR
ROJECT NO:	SCALE: AS NOTED
ROJECT NO: 40228.008.03	

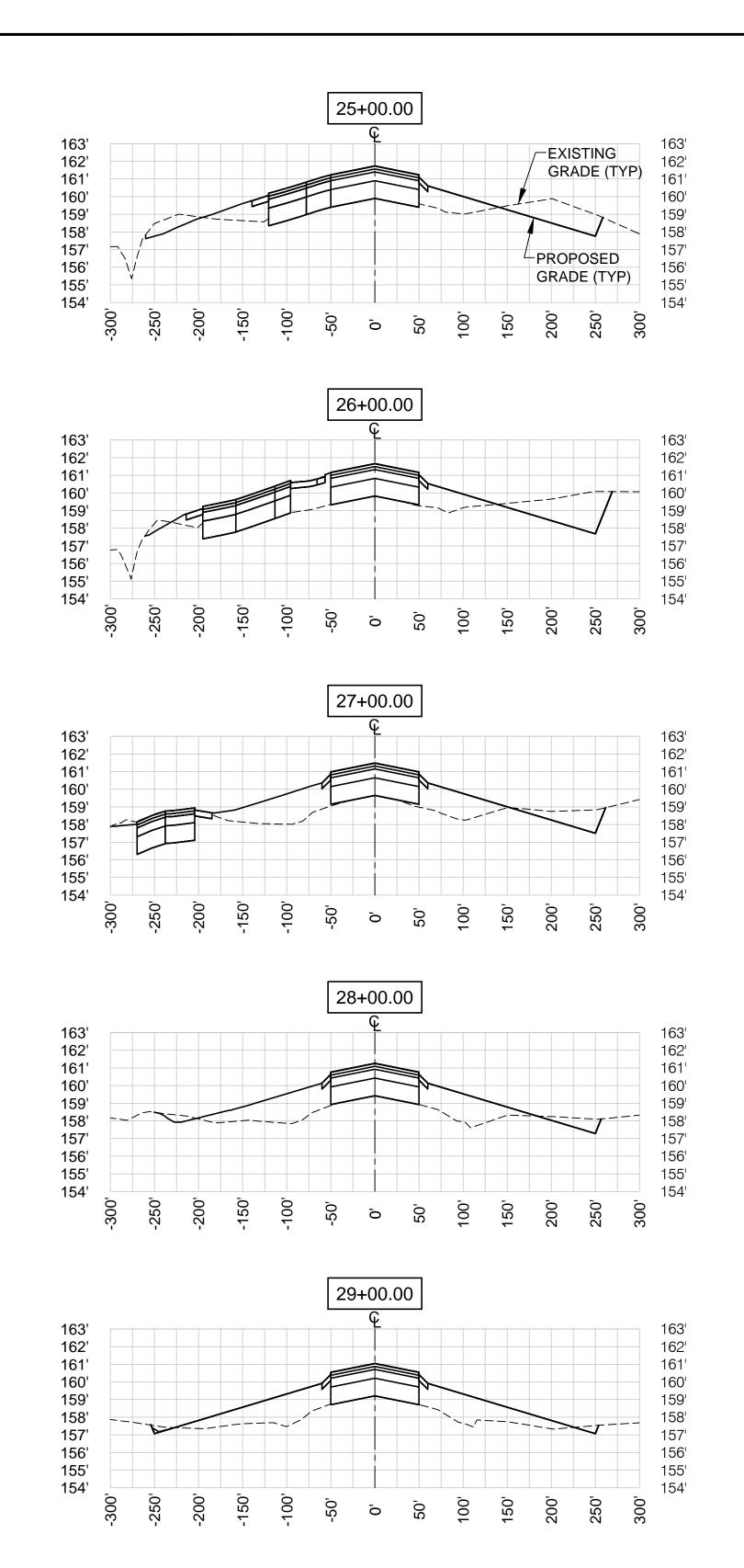
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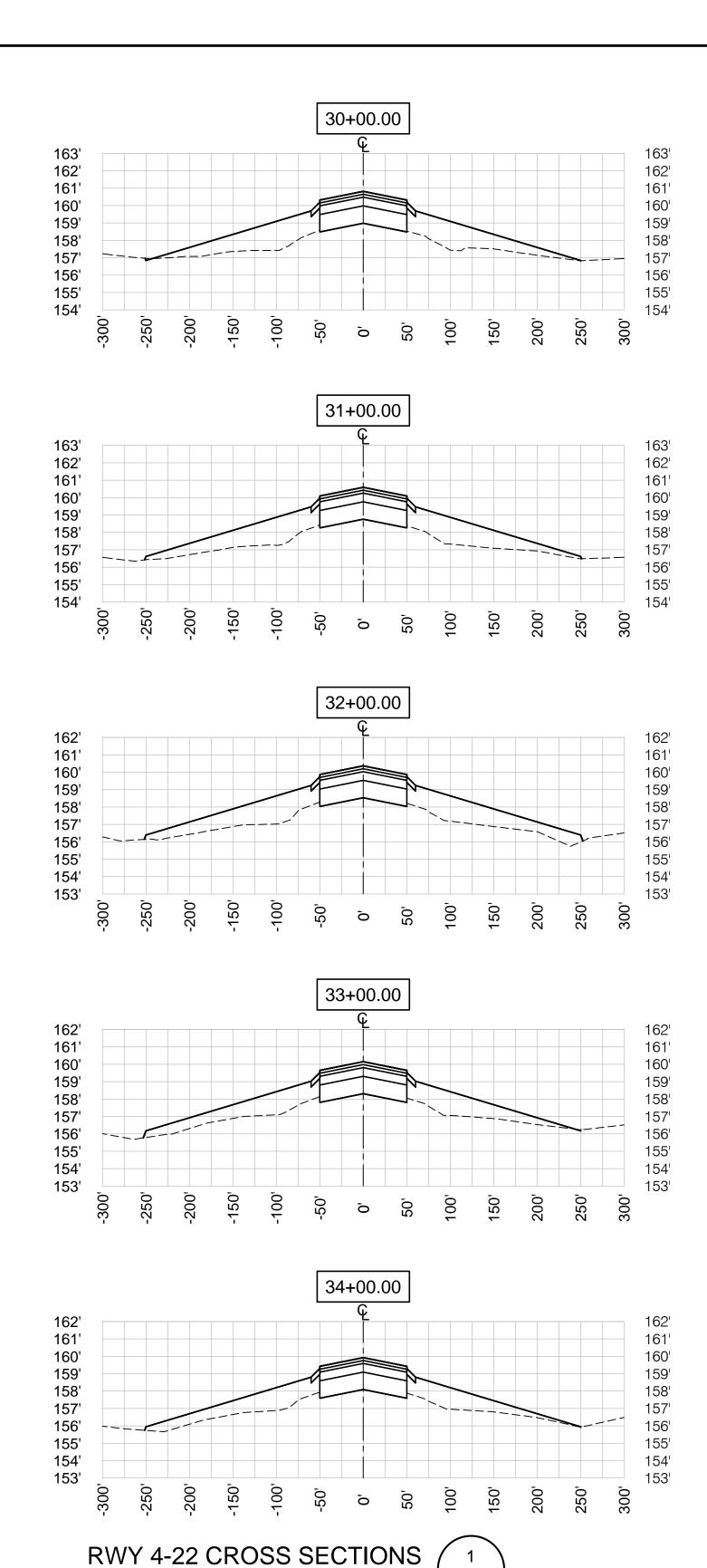
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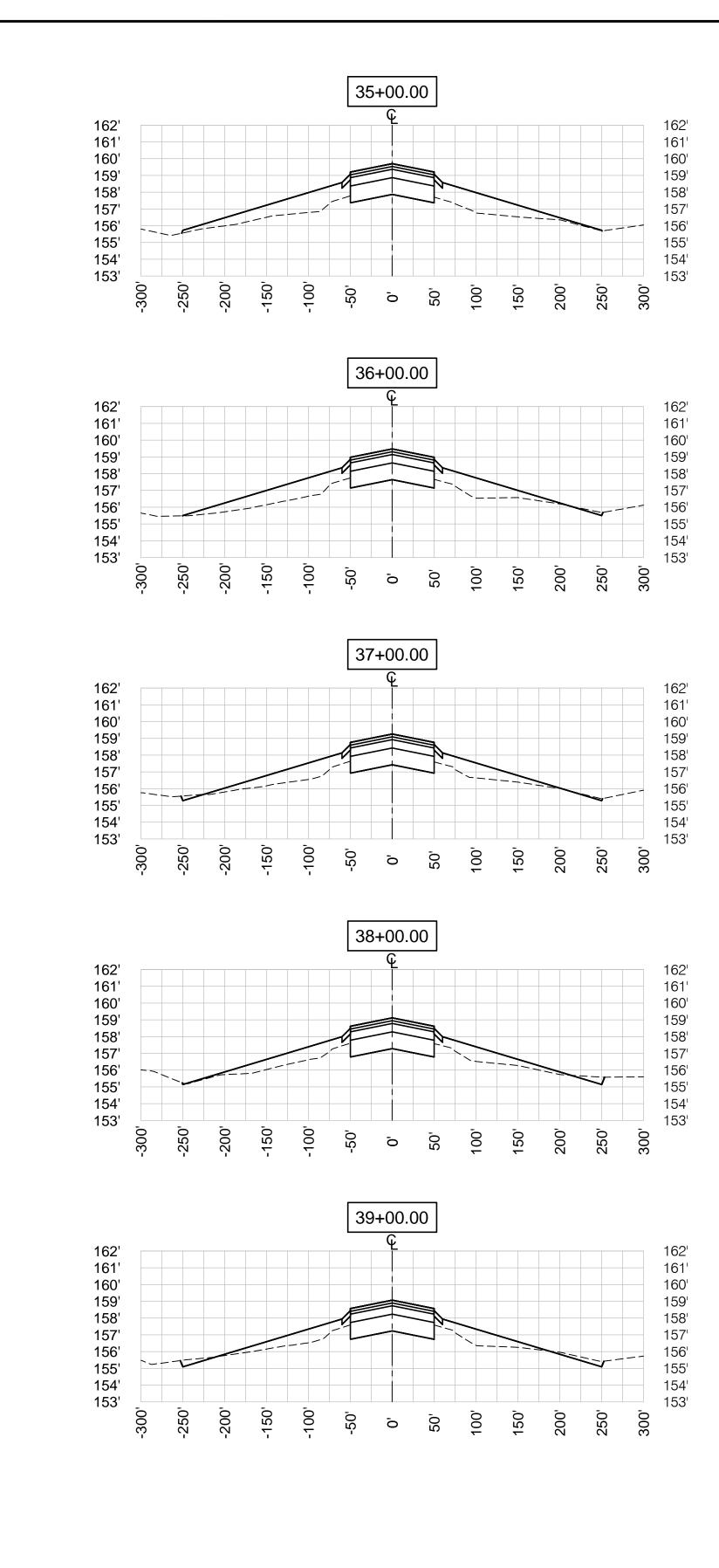
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44 OF 80

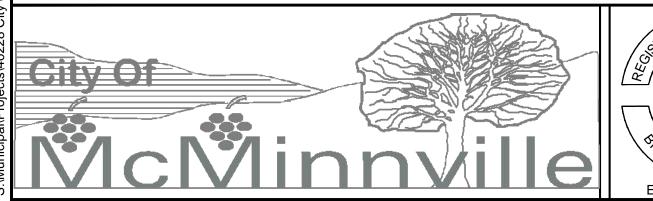
DRAWING NO.







- 1. SEE SHEET C-31 FOR TYPICAL RUNWAY 4-22 SECTION.
- 2. UNDERDRAINS NOT SHOWN (TYPICAL).





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CHECKED BY: JNR
SCALE: AS NOTED

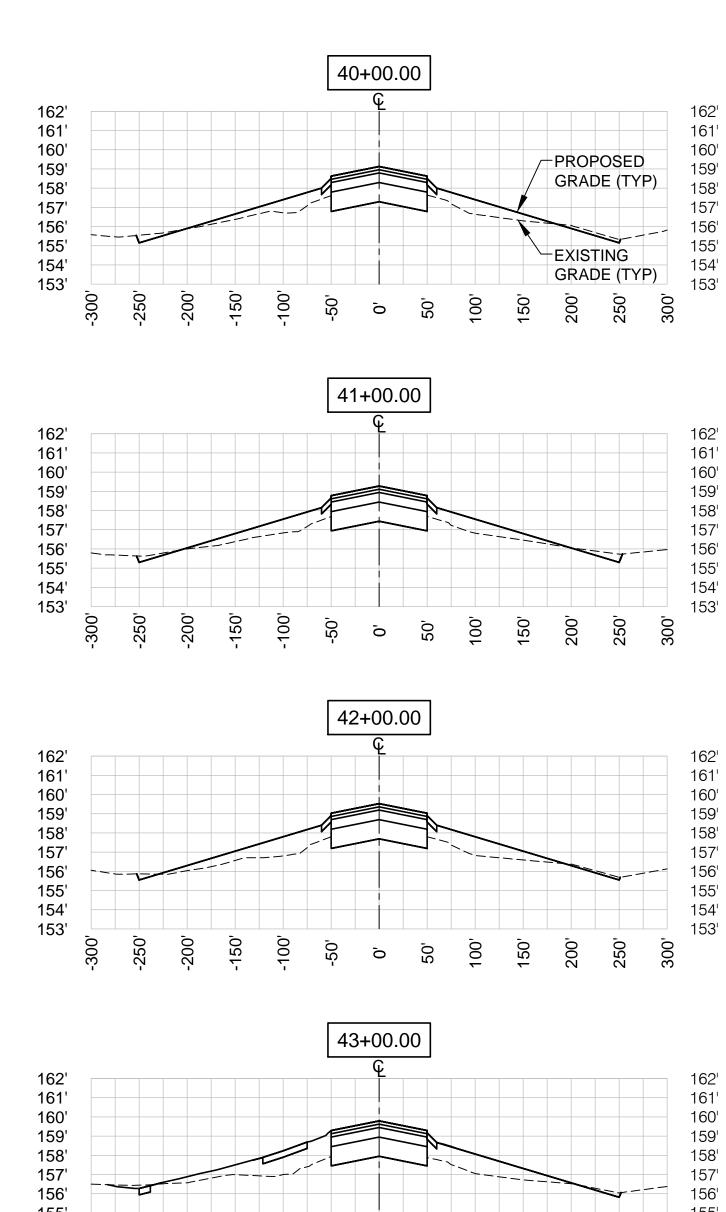
CITY OF MCMINNVILLE	
MCMINNVILLE MUNICIPAL AIRPORT	
RUNWAY 4-22 REHABILITATION PROJECT	

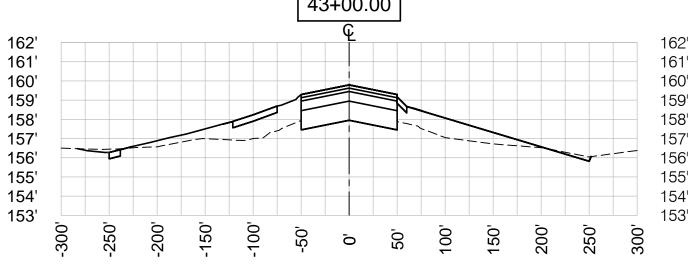
RUNWAY 4-22 CROSS SECTIONS STA 25+00 TO STA 39+00

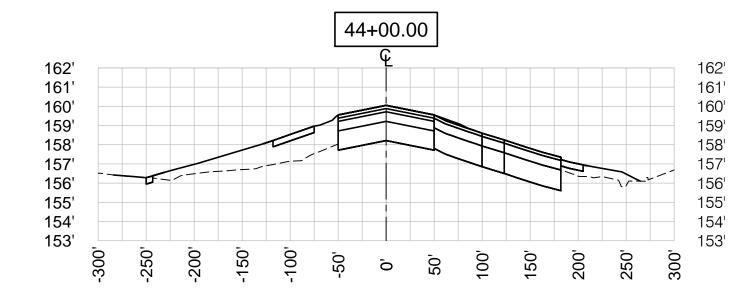
C-35

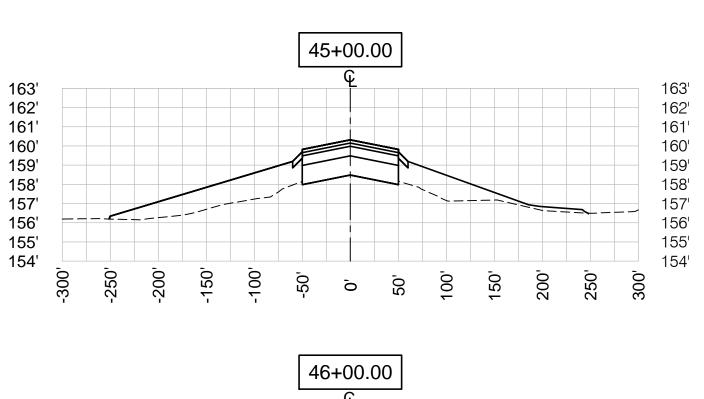
SHEET NO. 45 OF 80

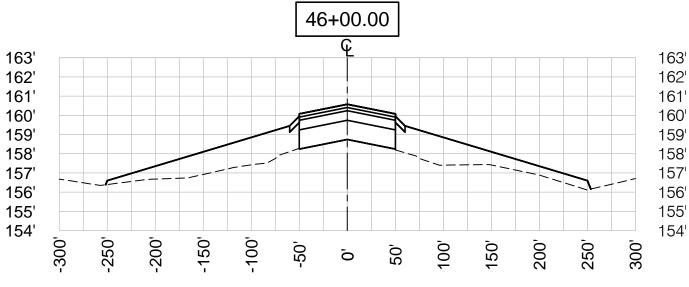
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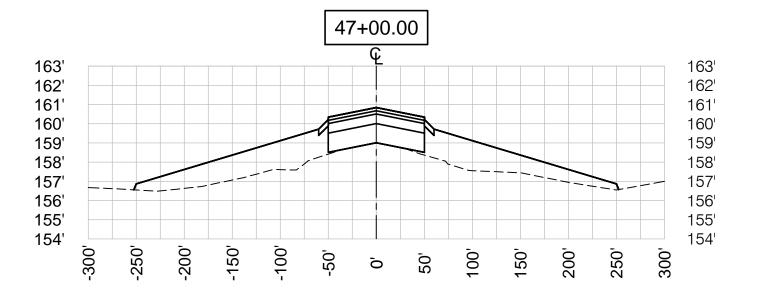


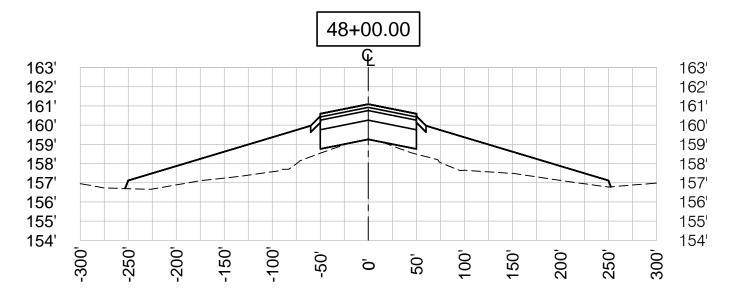


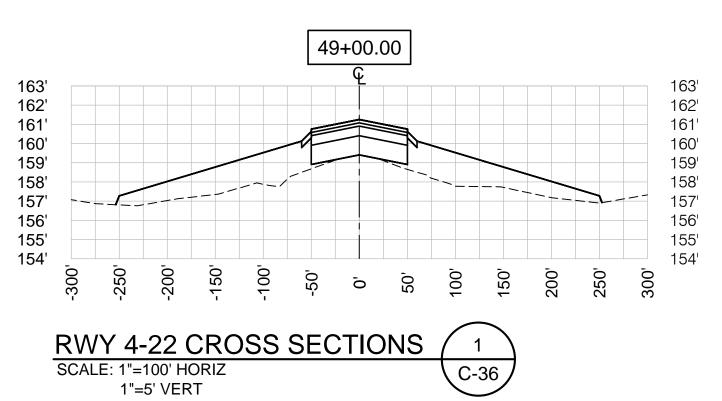


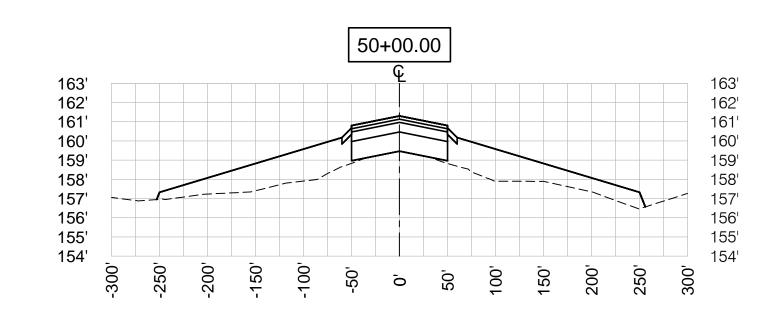


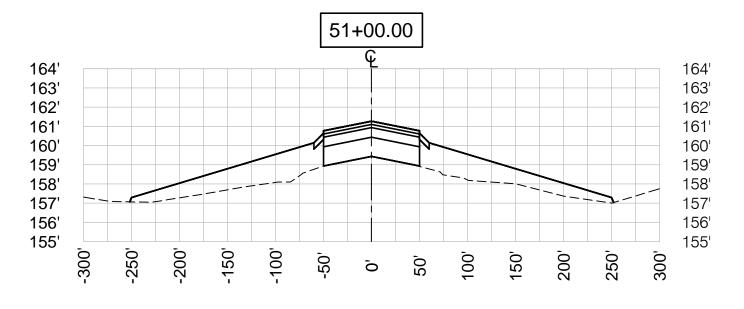


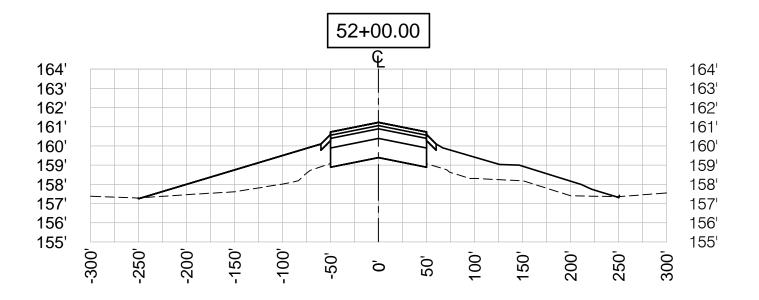


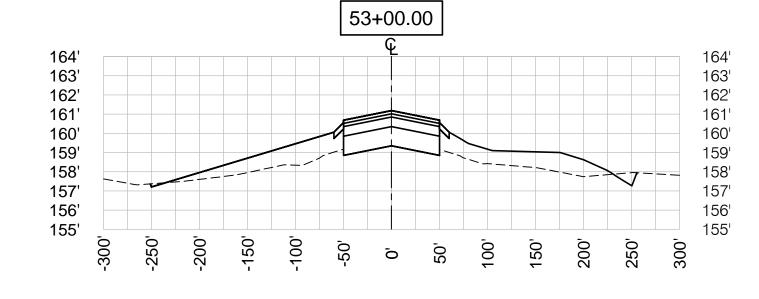


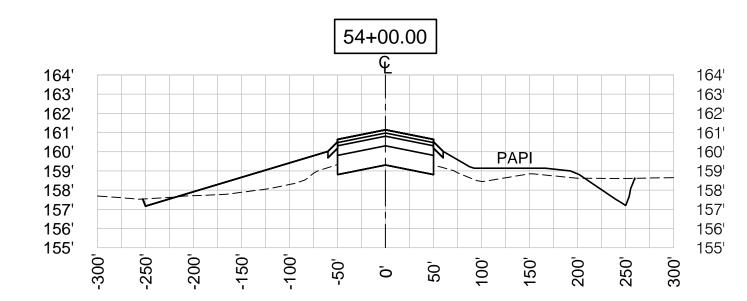




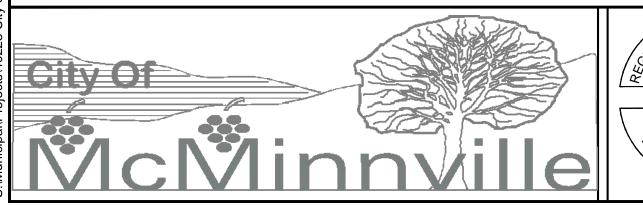








- 1. SEE SHEET C-31 FOR TYPICAL RUNWAY 4-22 SECTION.
- 2. UNDERDRAINS NOT SHOWN (TYPICAL).





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DESIGNED BY: BFC PORTLAND OFFICE 5331 SW MACADAM AVE., #207 DRAWN BY: PORTLAND, OR 97239 SLK 503.419.2130 CHECKED BY: 503.639.2710 FAX JNR PROJECT NO: SCALE:

AS NOTED

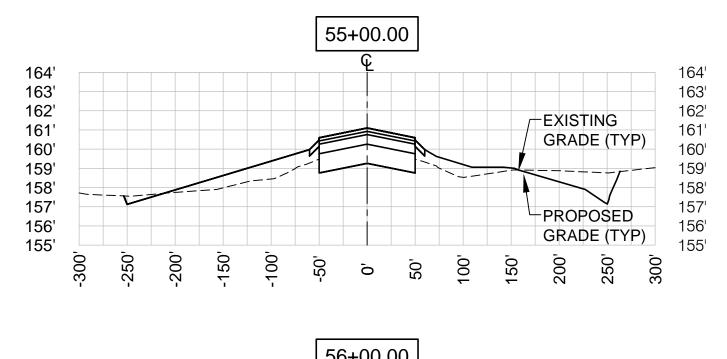
40228.008.03

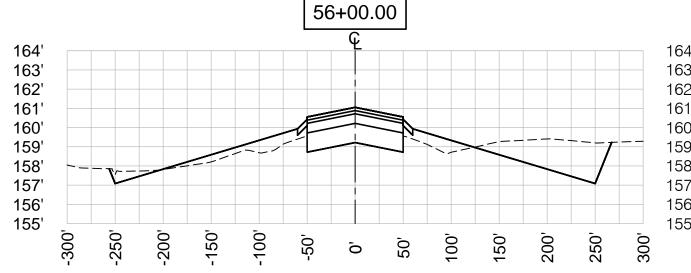
CITY OF MCMINNVILLE MCMINNVILLE MUNICIPAL AIRPORT **RUNWAY 4-22 REHABILITATION PROJECT**

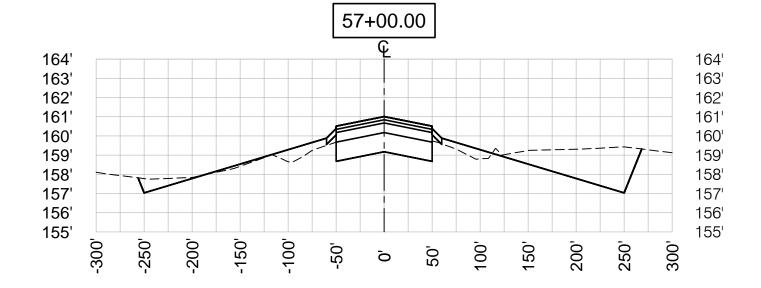
> **RUNWAY 4-22 CROSS SECTIONS** STA 40+00 TO STA 54+00

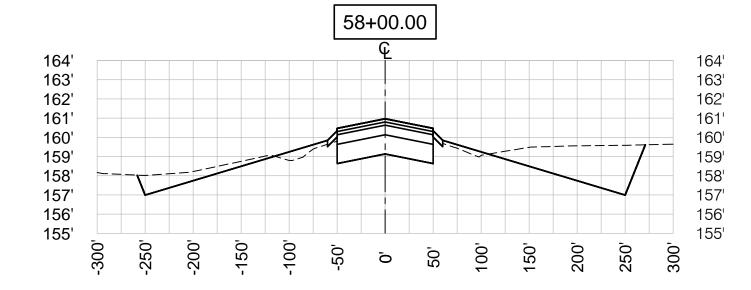
DRAWING NO. C-36

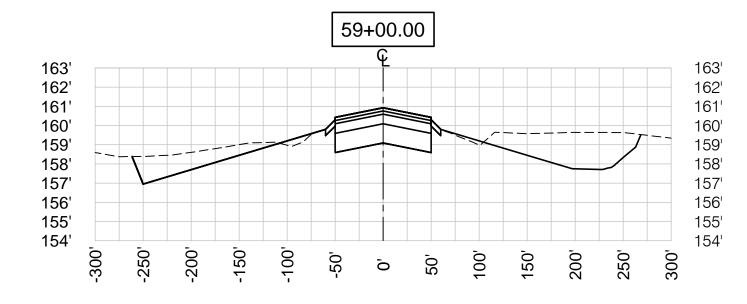
SHEET NO.

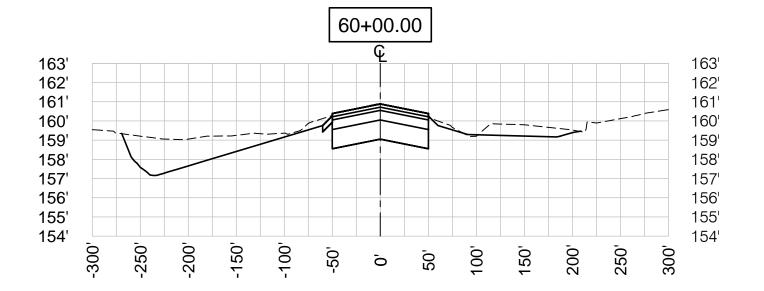


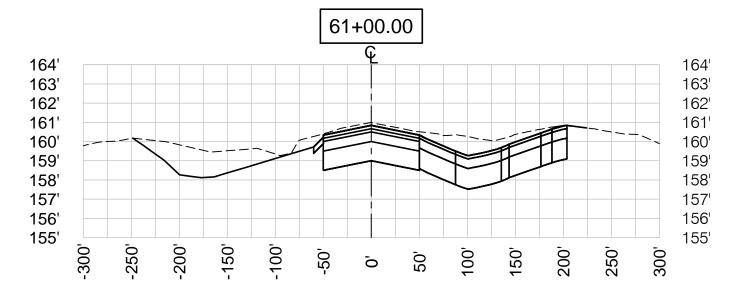


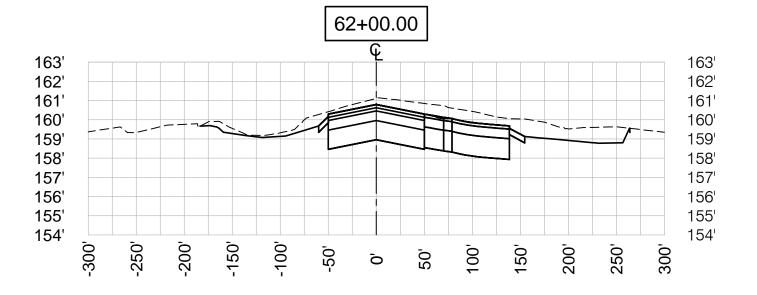


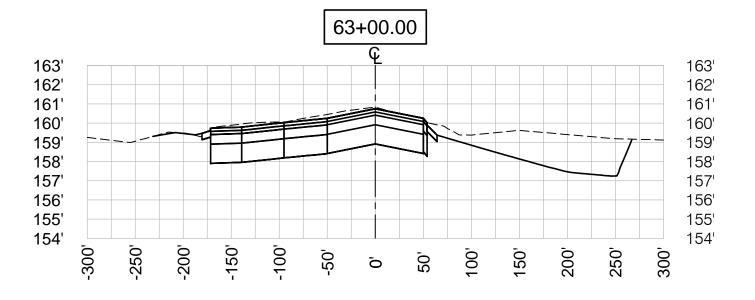


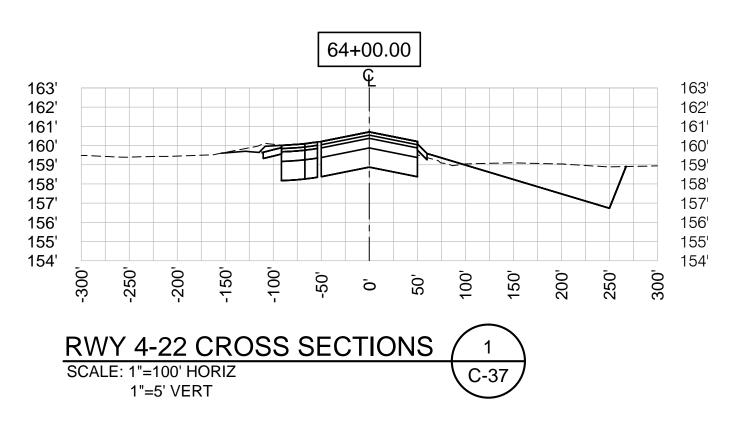


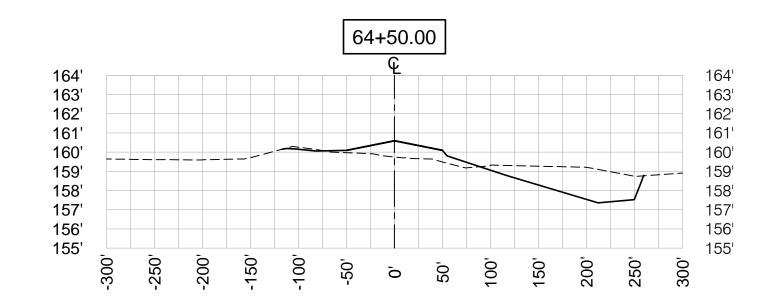


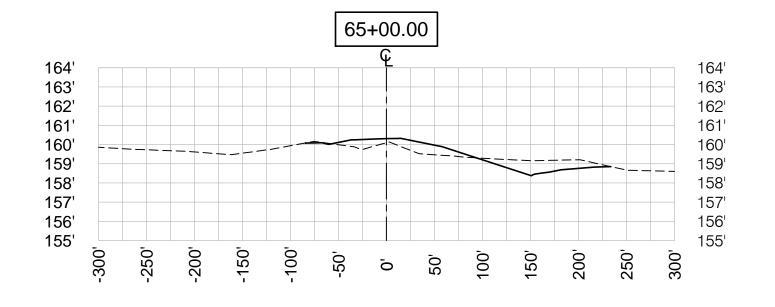


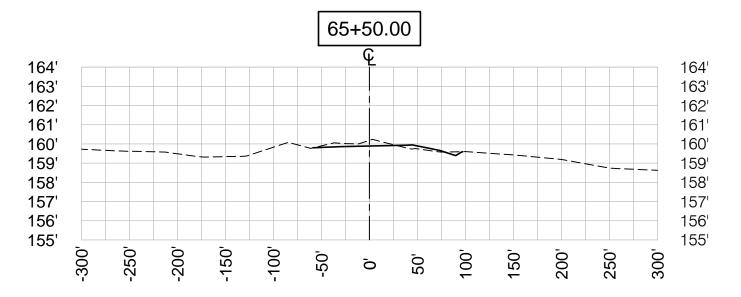


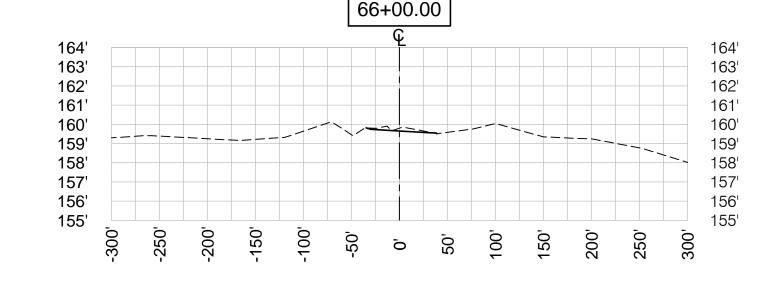




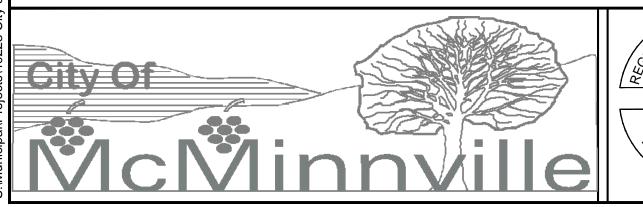








- 1. SEE SHEET C-31 FOR TYPICAL RUNWAY 4-22 SECTION.
- 2. UNDERDRAINS NOT SHOWN (TYPICAL).





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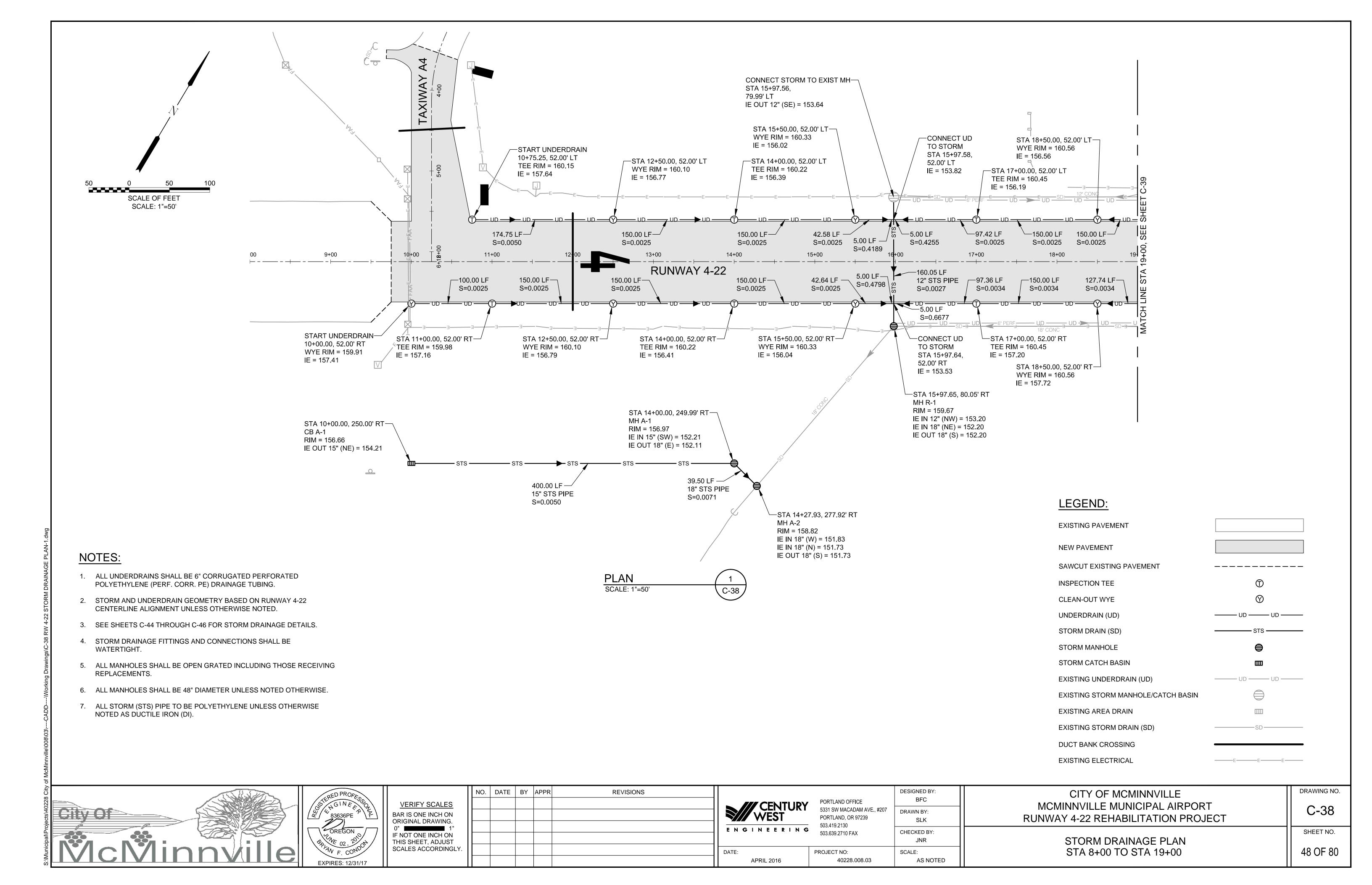
APRIL 2016

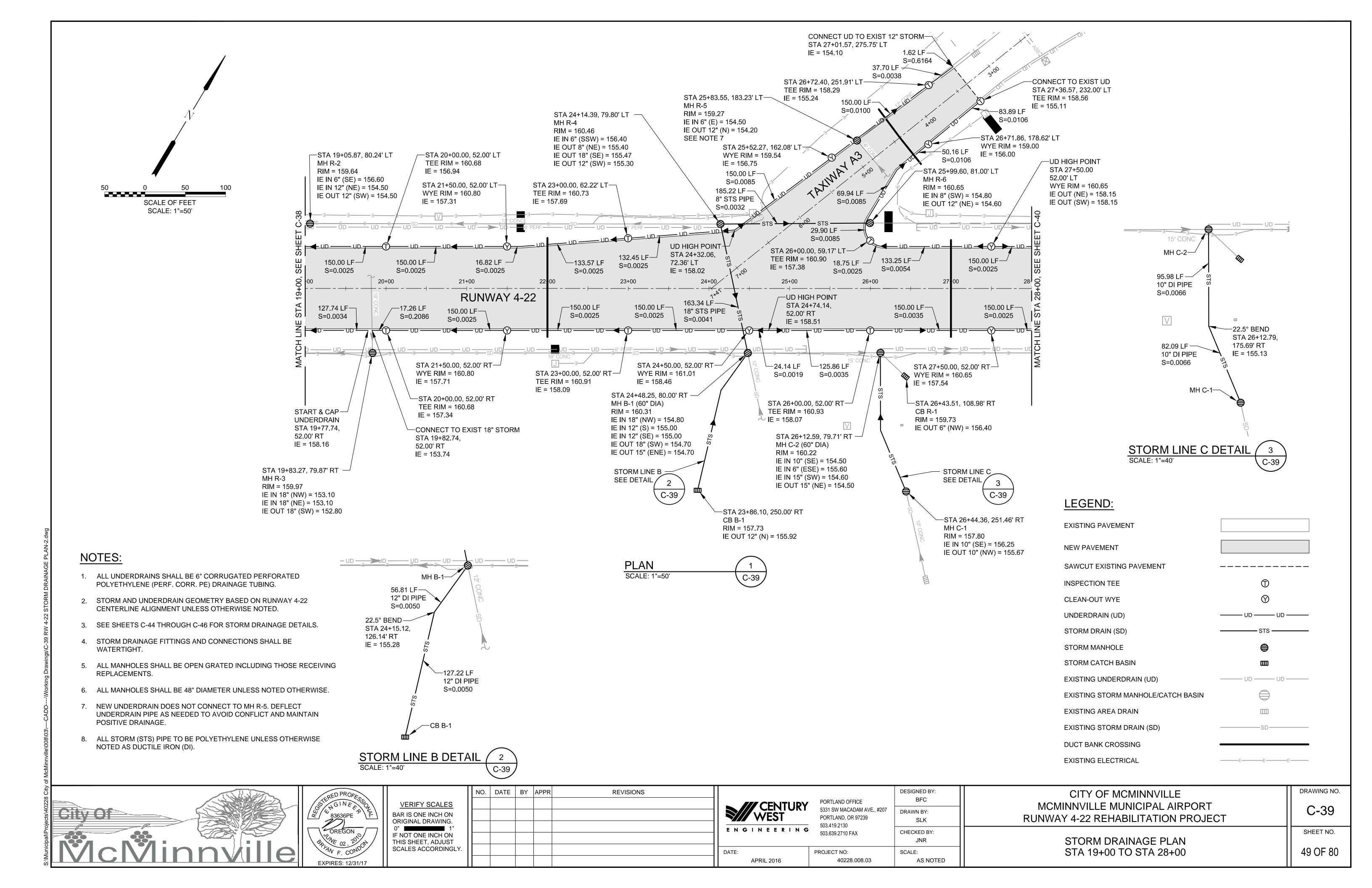
DESIGNED BY: BFC PORTLAND OFFICE 5331 SW MACADAM AVE., #207 DRAWN BY: PORTLAND, OR 97239 SLK 503.419.2130 CHECKED BY: 503.639.2710 FAX JNR PROJECT NO: SCALE: 40228.008.03 AS NOTED

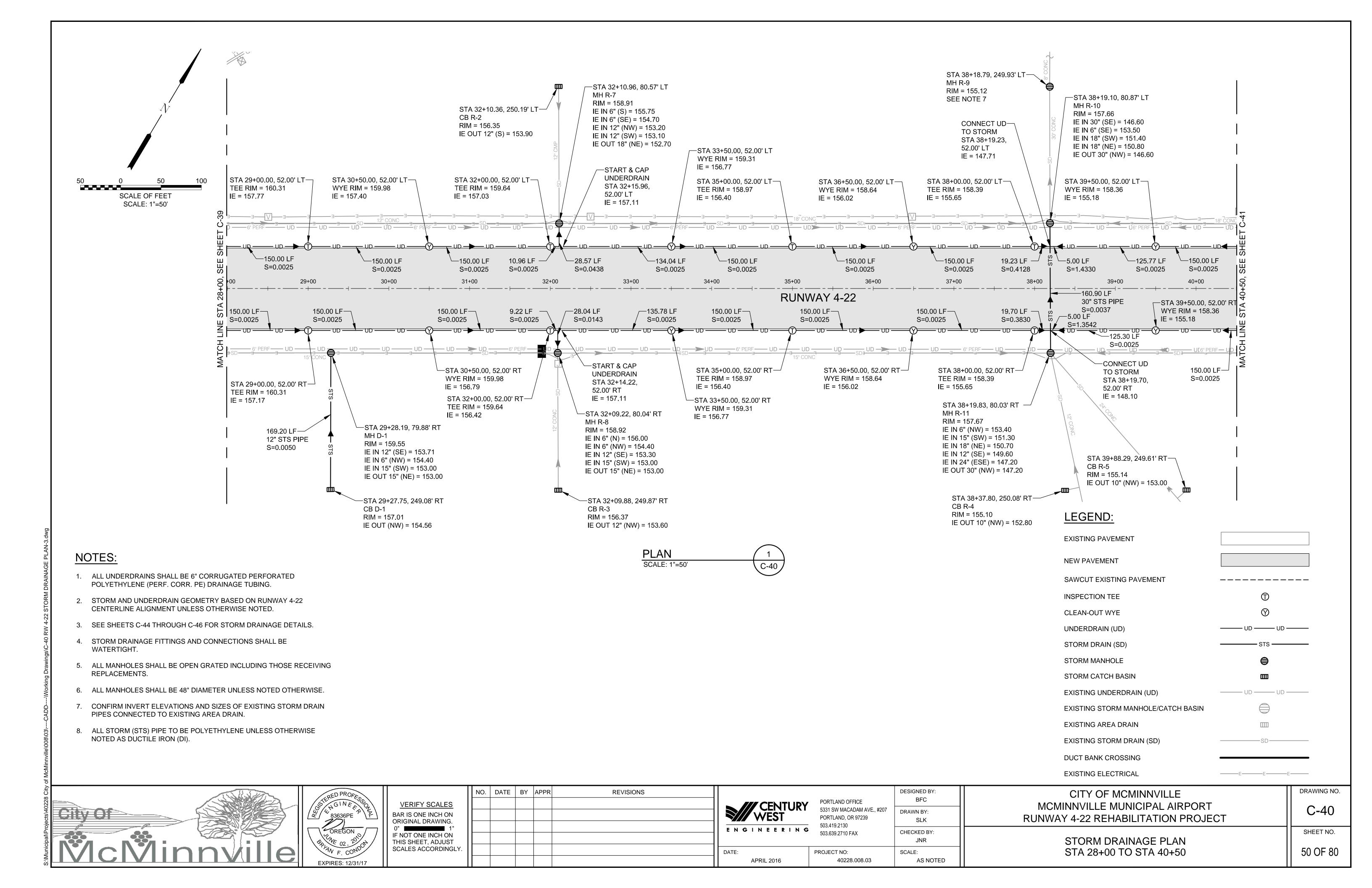
CITY OF MCMINNVILLE MCMINNVILLE MUNICIPAL AIRPORT **RUNWAY 4-22 REHABILITATION PROJECT**

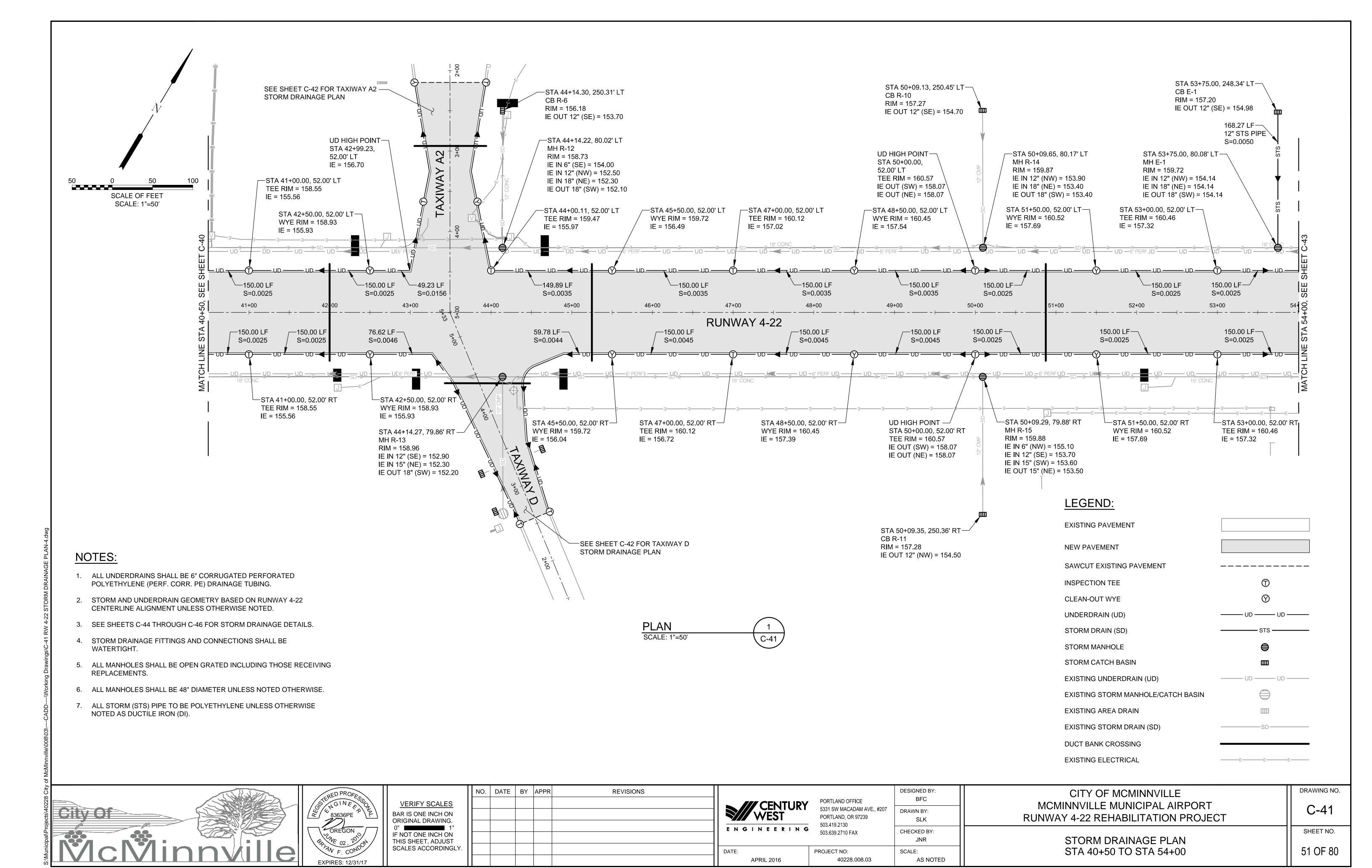
RUNWAY 4-22 CROSS SECTIONS STA 55+00 TO STA 66+00

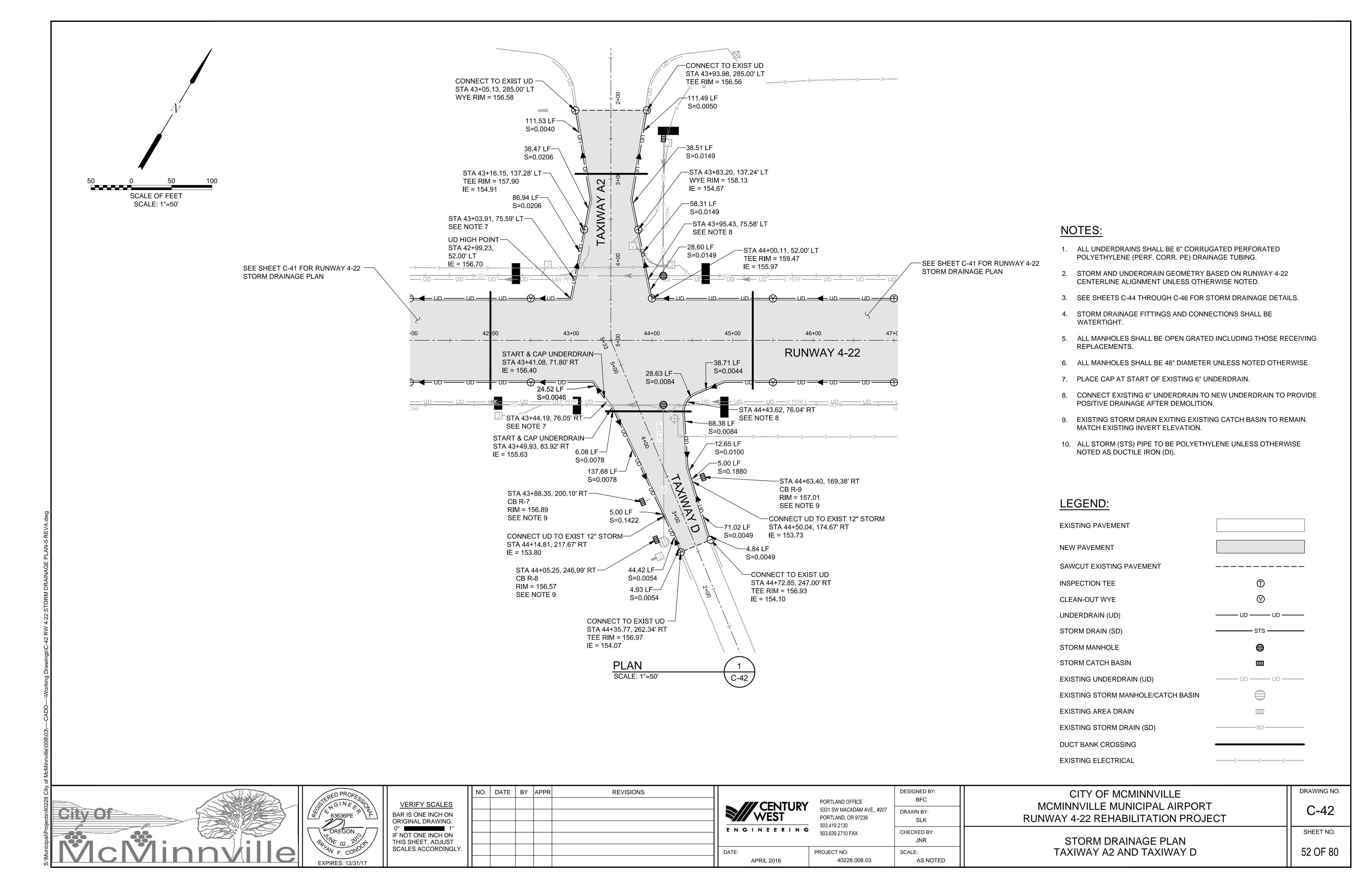
DRAWING NO. C-37 SHEET NO.

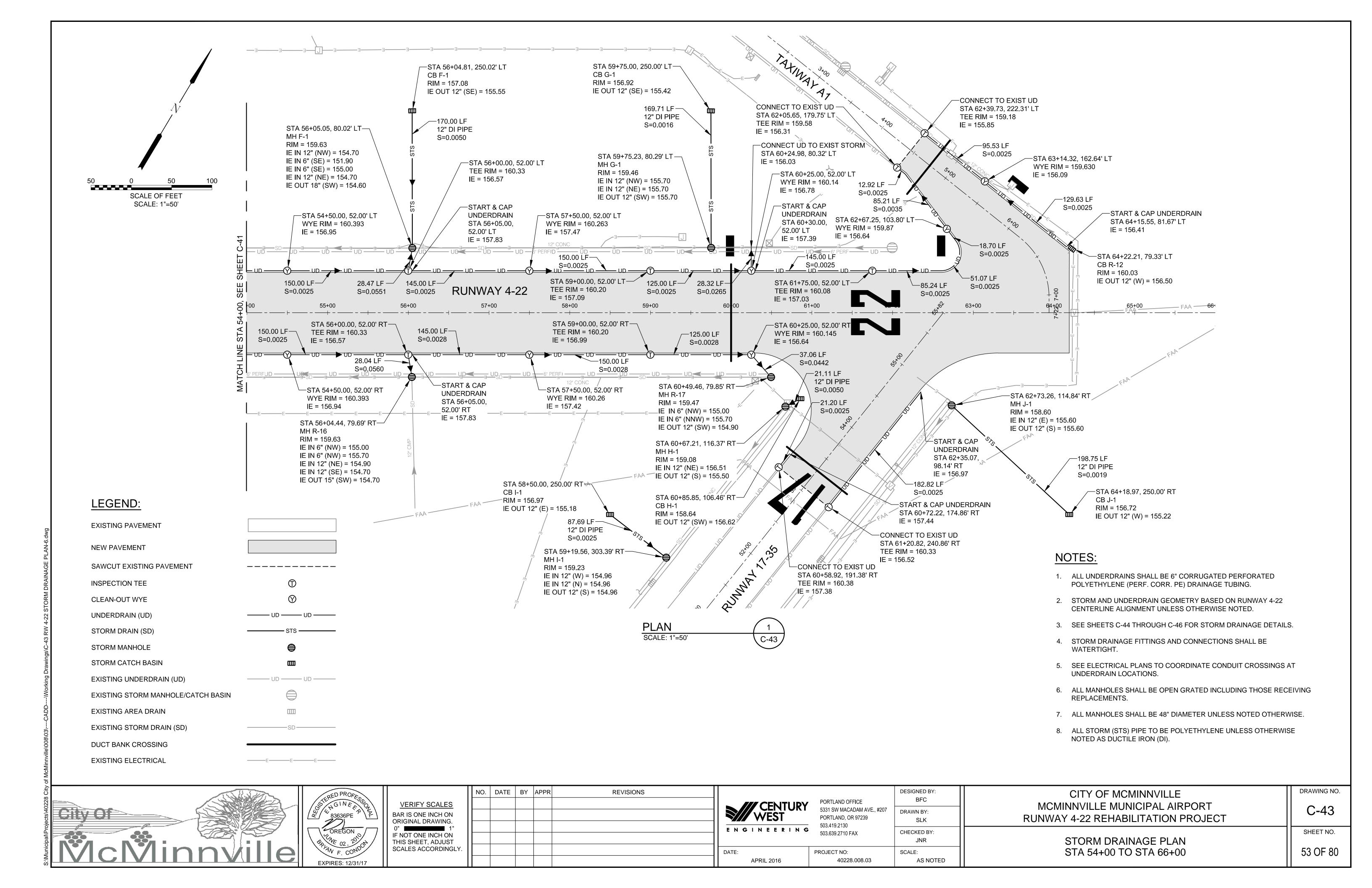






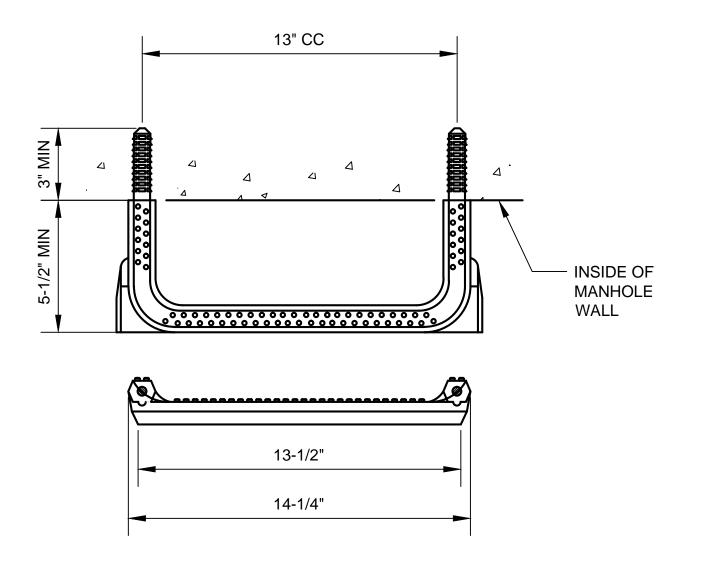






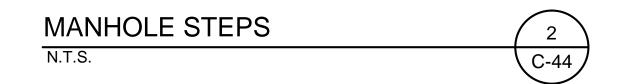
- 1. MANHOLES SHALL BE PRECAST AND DESIGNED FOR LOADING OF 100,000 LBS. (100 KIPS) WITH 250 PSI TIRE PRESSURE. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND STRUCTURAL CALCULATIONS STAMPED BY A LICENSED ENGINEER IN THE STATE OF OREGON FOR APPROVAL.
- 2. MANHOLE FRAME & COVER SHALL BE DUCTILE IRON & DESIGNED TO MEET 100,000 LB. WHEEL LOADS WITH 250 PSI TIRE PRESSURE. COVER SHALL BE BOLTED TO FRAME.
- 3. PROVIDE FLEX JOINT WITHIN 18" OF MANHOLE, KOR-N-SEAL OR EQUAL IS ACCEPTABLE.
- 4. MANHOLE LIDS SHALL BE OPEN GRATE UNLESS OTHERWISE NOTED ON PLANS.

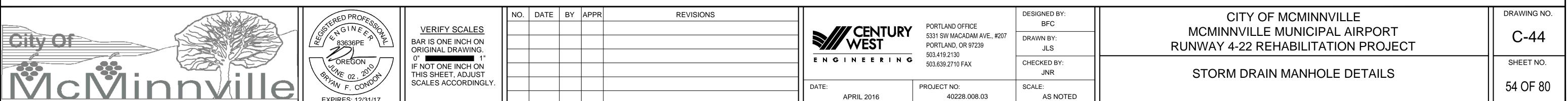


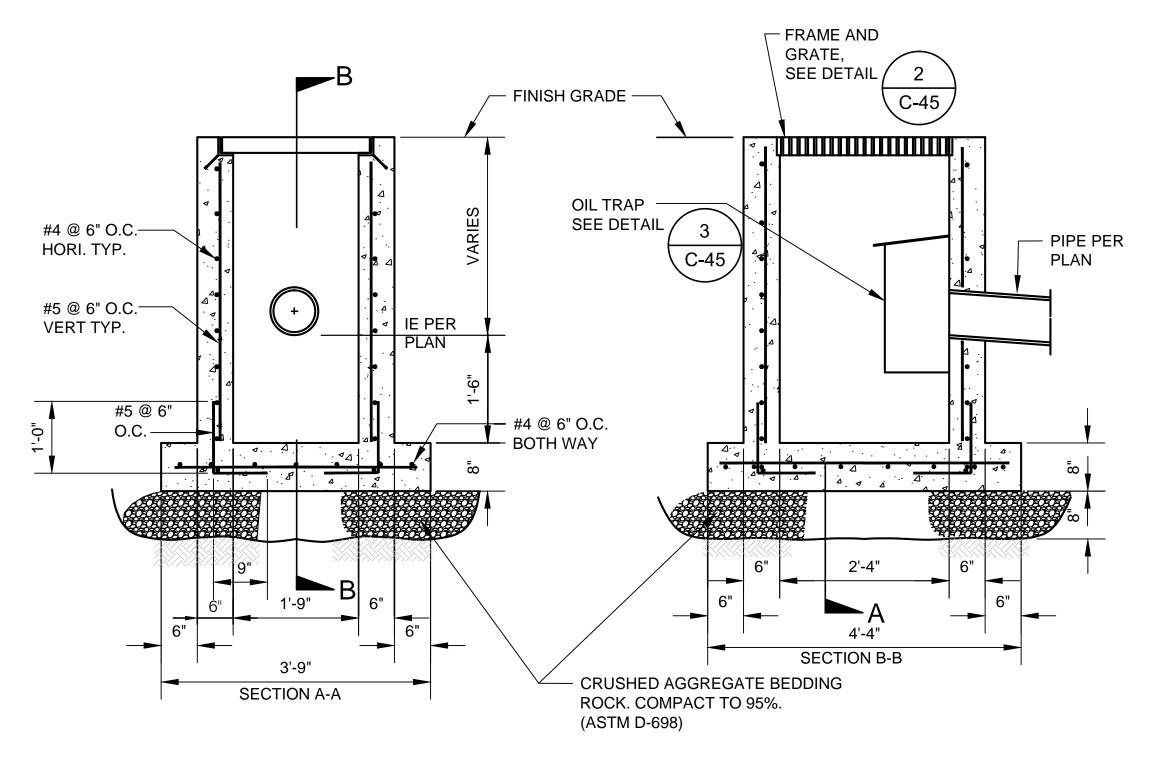


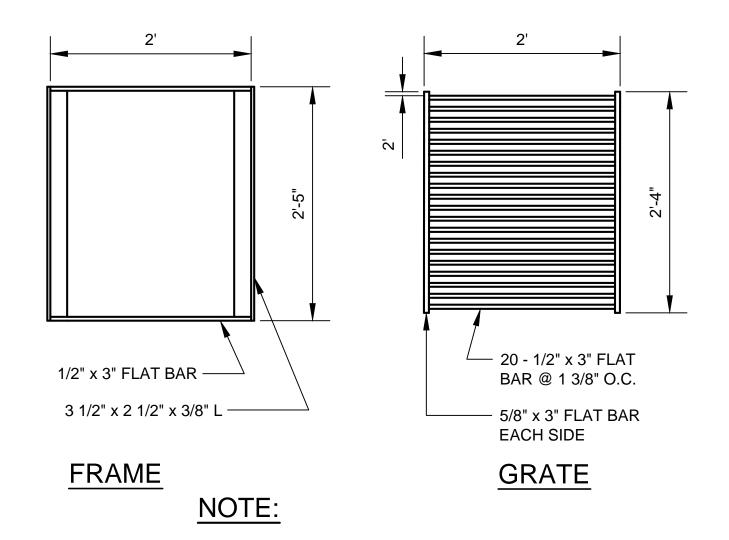
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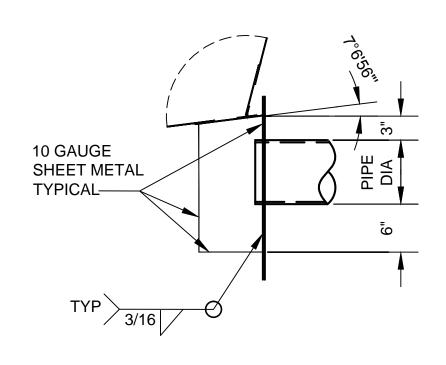
- 1. STEPS SHALL BE DEFORMED STEEL REINFORCED POLYPROPYLENE PLASTIC. ONLY STEPS THAT HAVE BEEN APPROVED BY THE ENGINEER SHALL BE USED IN MANHOLES.
- 2. ALL STEPS WITHIN A MANHOLE SHALL BE OF THE SAME DESIGN, TYPE, AND SIZE.
 (MIXING OF UNMATCHED STEPS WITHIN THE SAME MANHOLE IS NOT PERMITTED.)
- 3. LOOSE STEPS SHALL BE CAUSE FOR REJECTION OF THAT MANHOLE CONE OR SECTION.
- 4. STEPS SHALL BE ALIGNED VERTICALLY.
- 5. STEPS SHALL BE SPACED 12" O.C.
- 6. MAXIMUM DISTANCE FROM TOP OF MANHOLE FRAME TO FIRST STEP SHALL BE 26".











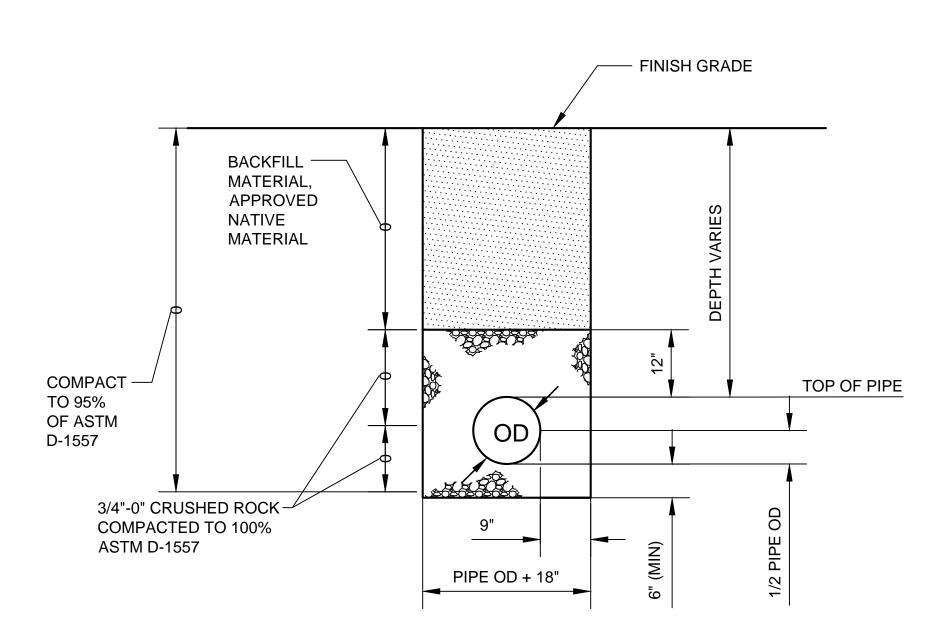
CONCRETE CATCH BASIN N.T.S. C-45

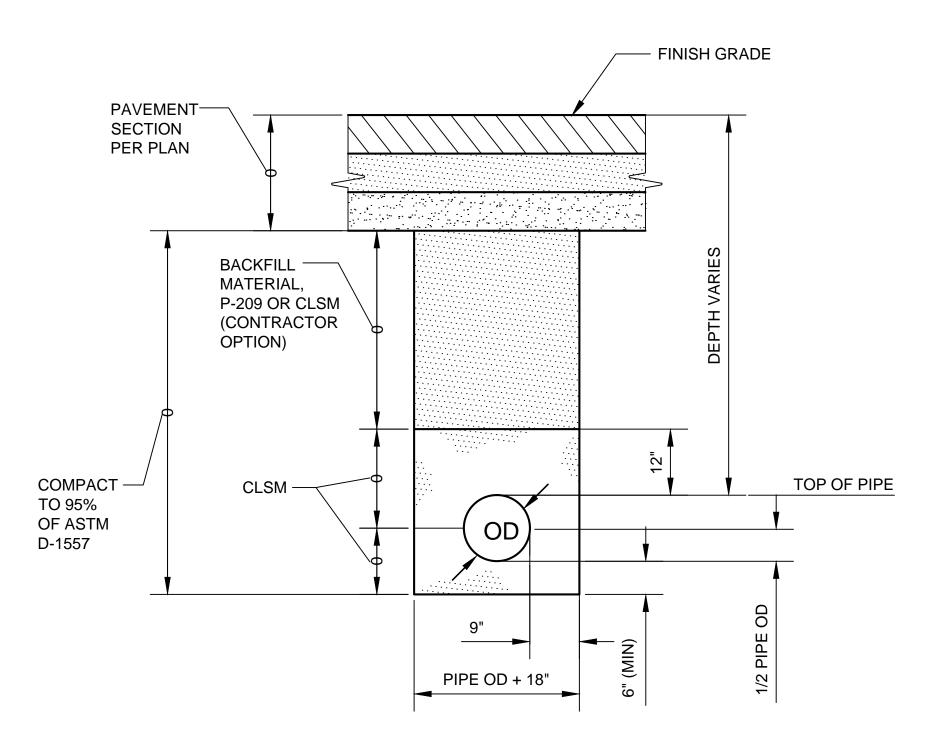
FRAME AND GATE DETAILS 2 N.T.S.

1. HOT DIP GALV. FRAME & GRATE

AFTER FABRICATION.

OIL TRAP DETAIL N.T.S. C-45

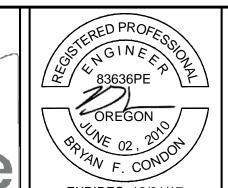




STORM DRAIN TRENCH DETAIL **UNPAVED AREAS** C-45 N.T.S.

STORM DRAIN TRENCH DETAIL NEW PAVED AREAS N.T.S.





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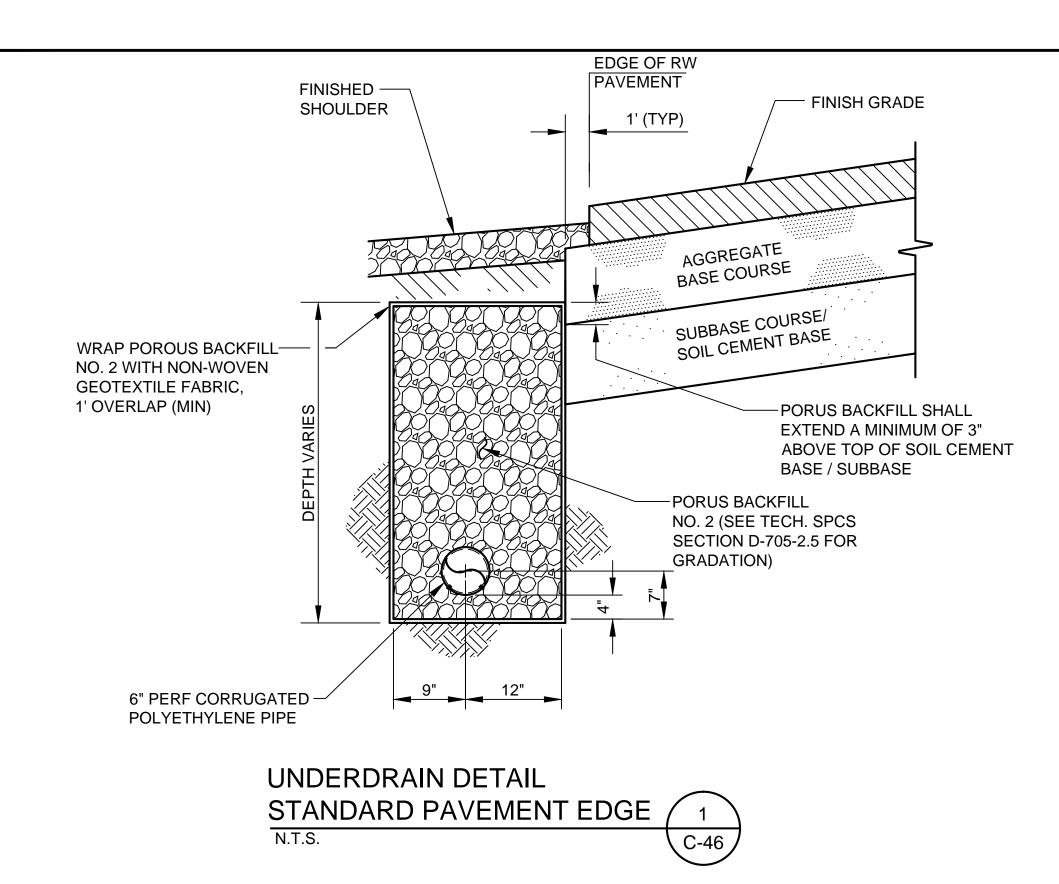
PORTLAND OFFICE 5331 SW MACADAM AVE., #207 PORTLAND, OR 97239 503.419.2130 503.639.2710 FAX	DESIGNED BY: BFC DRAWN BY: JLS CHECKED BY: JNR
PROJECT NO:	SCALE:
40228.008.03	AS NOTED

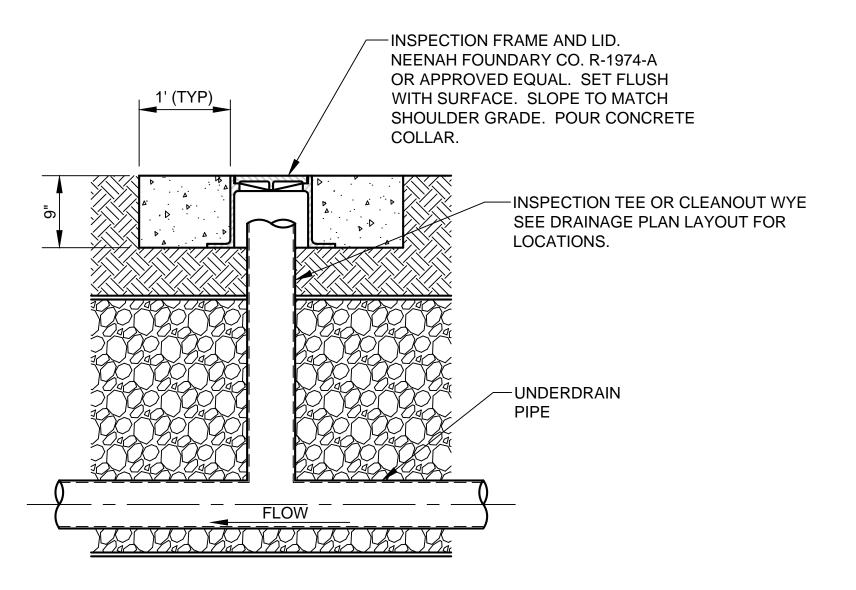
C-45

CITY OF MCMINNVILLE	DRAWING NO.
MCMINNVILLE MUNICIPAL AIRPORT RUNWAY 4-22 REHABILITATION PROJECT	C-45
	SHEET NO.

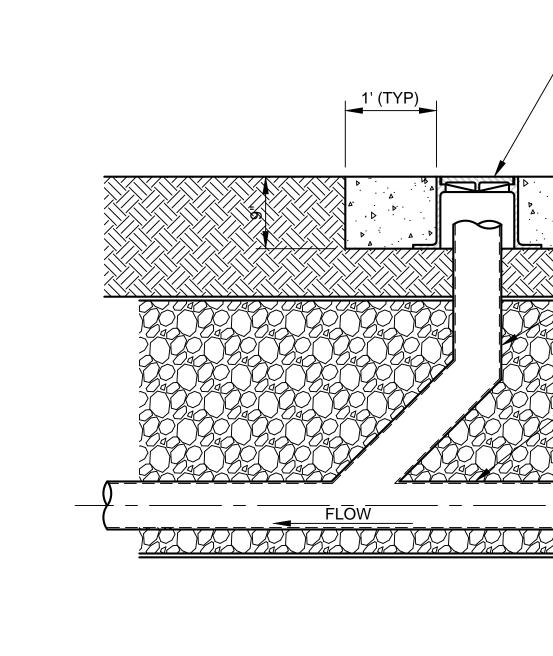
STORM DRAIN DETAILS

SHEET NO. 55 OF 80









CLEAN-OUT WYE DETAIL C-46

-INSPECTION FRAME AND LID.

COLLAR.

-UNDERDRAIN

NEENAH FOUNDARY CO. R-1974-A OR APPROVED EQUAL. SET FLUSH

WITH SURFACE. SLOPE TO MATCH

LOCATIONS.

SHOULDER GRADE. POUR CONCRETE

-INSPECTION TEE OR CLEANOUT WYE

SEE DRAINAGE PLAN LAYOUT FOR



VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

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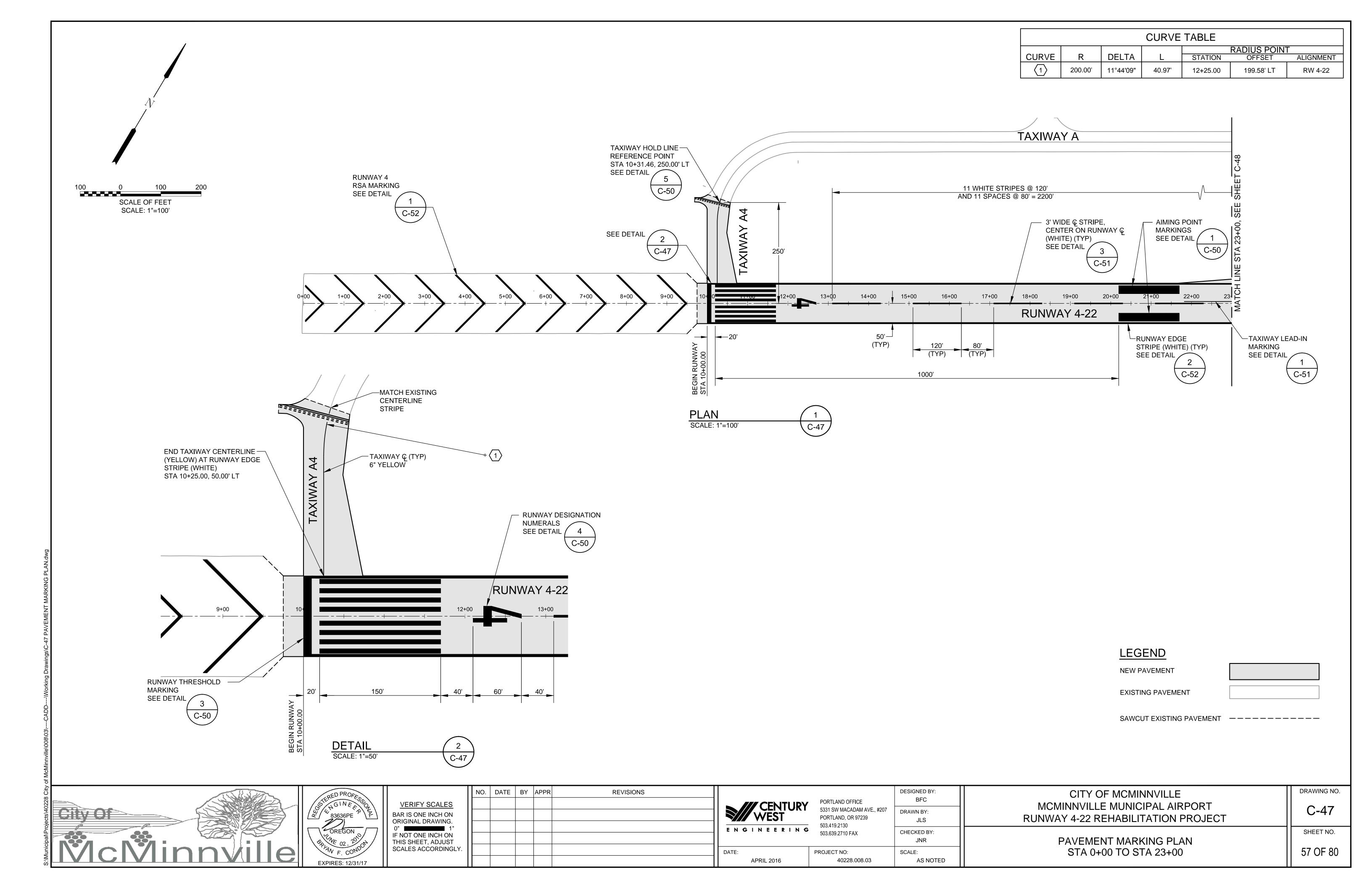
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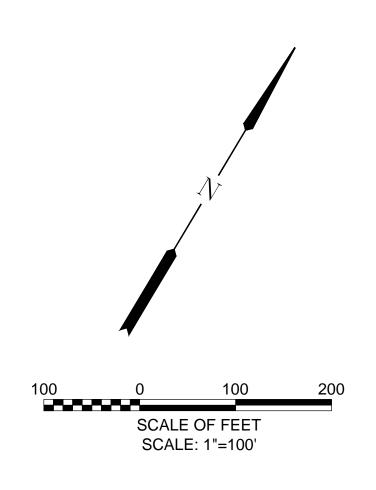
APRIL 2016

PORTLAND OFFICE	DESIGNED BY: BFC
331 SW MACADAM AVE., #207 PORTLAND, OR 97239 303.419.2130	DRAWN BY: JLS
03.639.2710 FAX	CHECKED BY: JNR
OJECT NO: 40228.008.03	SCALE: AS NOTED

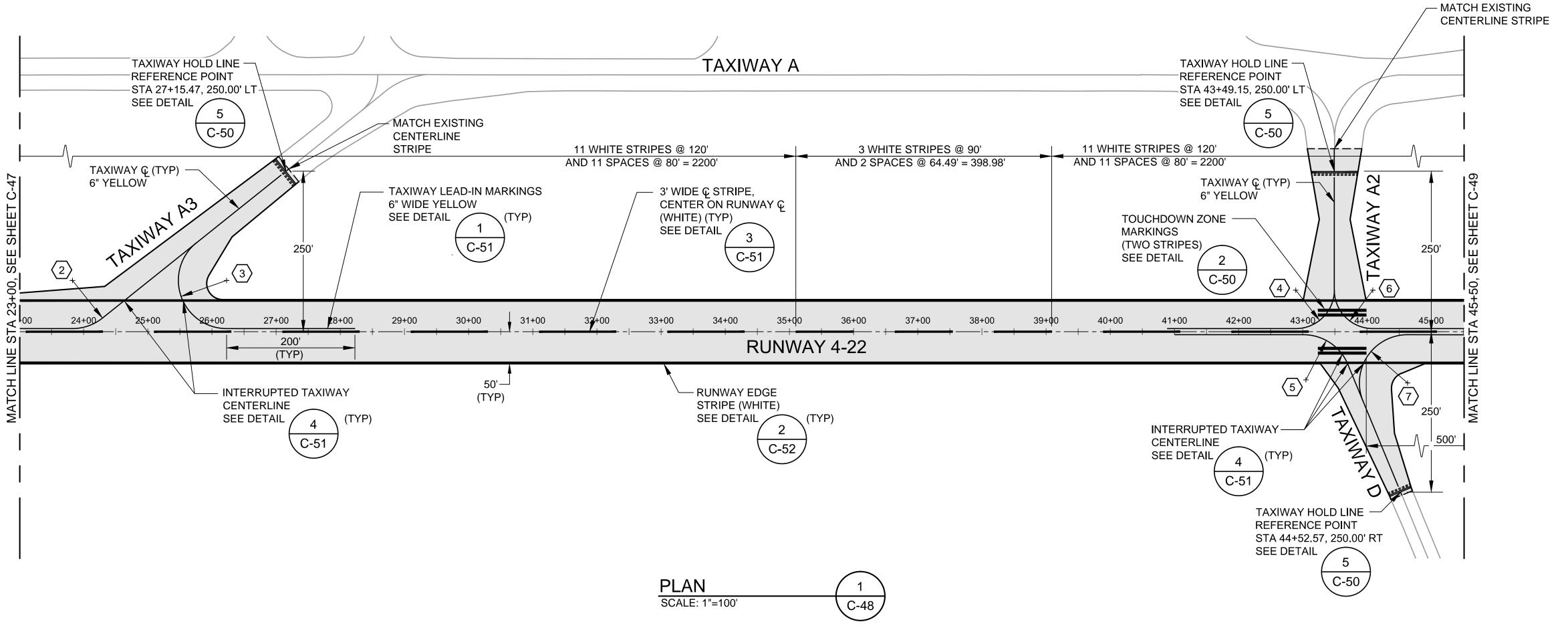
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MCMINNVILLE MUNICIPAL AIRPORT RUNWAY 4-22 REHABILITATION PROJECT	C-46
	SHEET NO.

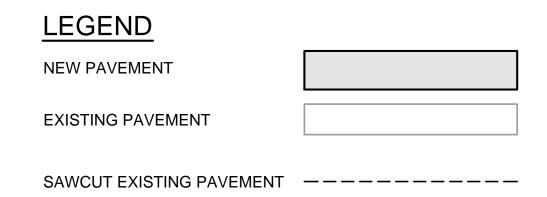
SHEET NO. UNDERDRAIN DETAILS 56 OF 80





			CURVE	TABLE		
	_		_		RADIUS POIN	Γ
CURVE	R	DELTA	L	STATION	OFFSET	ALIGNMENT
2	75.00'	38°39'12"	50.60'	23+82.54	79.75' LT	RW 4-22
3	75.00'	141°20'48"	185.02'	26+22.69	79.75' LT	RW 4-22
4	60.00'	90°00'0"	94.25'	42+89.15	64.75' LT	RW 4-22
5	75.00'	67°31'31"	88.39'	43+00.98	79.75' RT	RW 4-22
6	60.00'	90°00'00"	94.25'	44+09.15	64.75' LT	RW 4-22
7	75.00'	112°28'29"	147.23'	44+63.30	79.75' RT	RW 4-22





DRAWING NO.

C-48

SHEET NO.

58 OF 80





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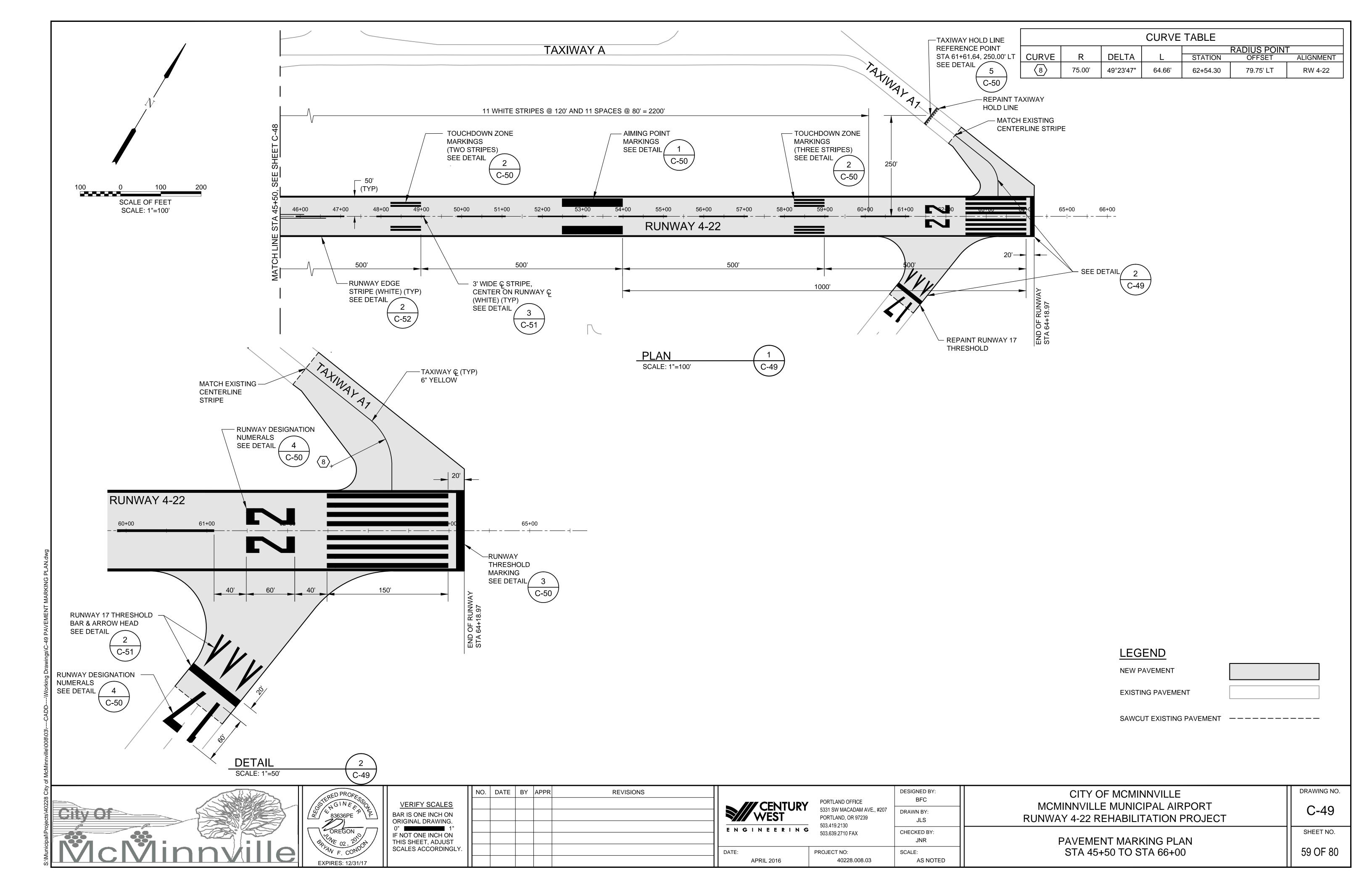
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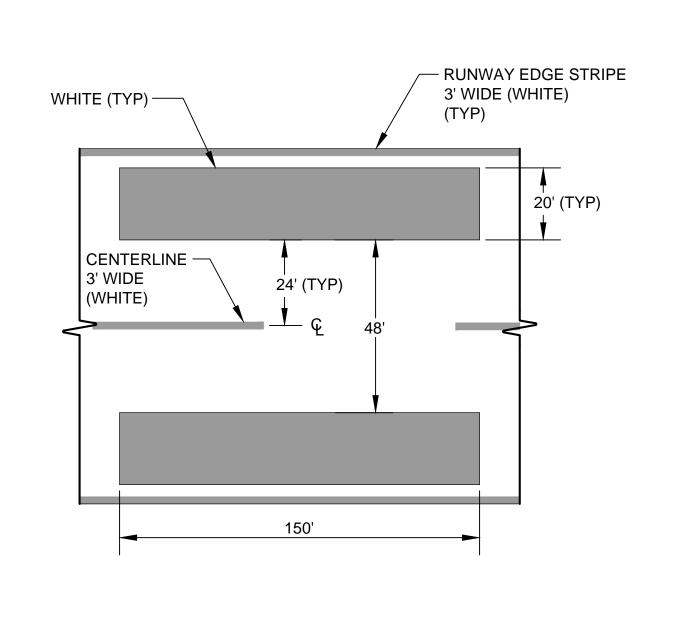
AND BY:
JNR

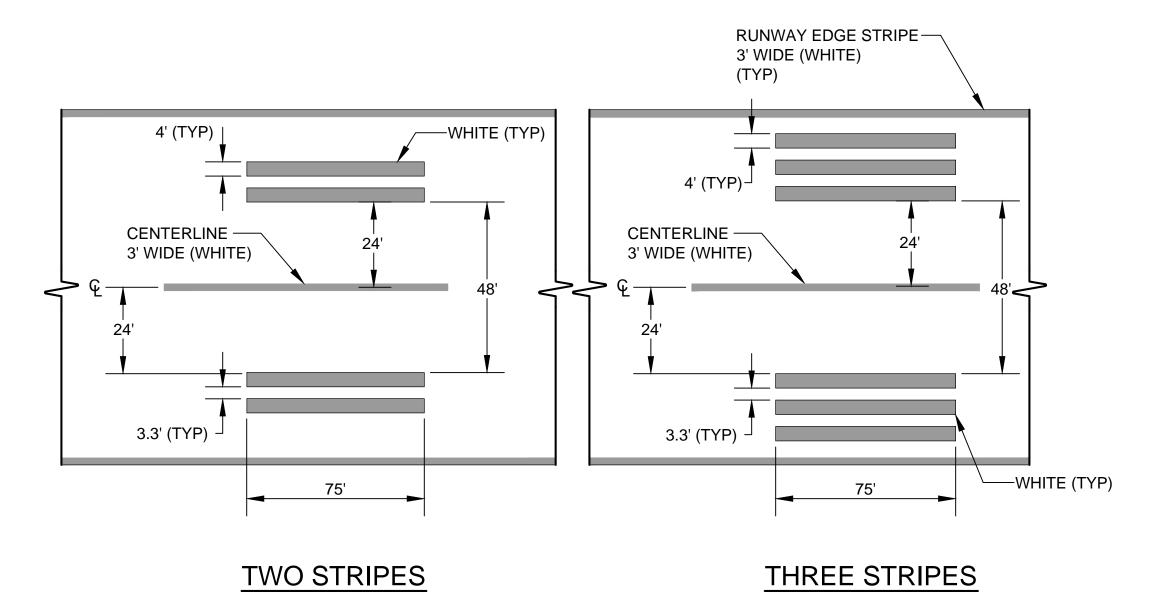
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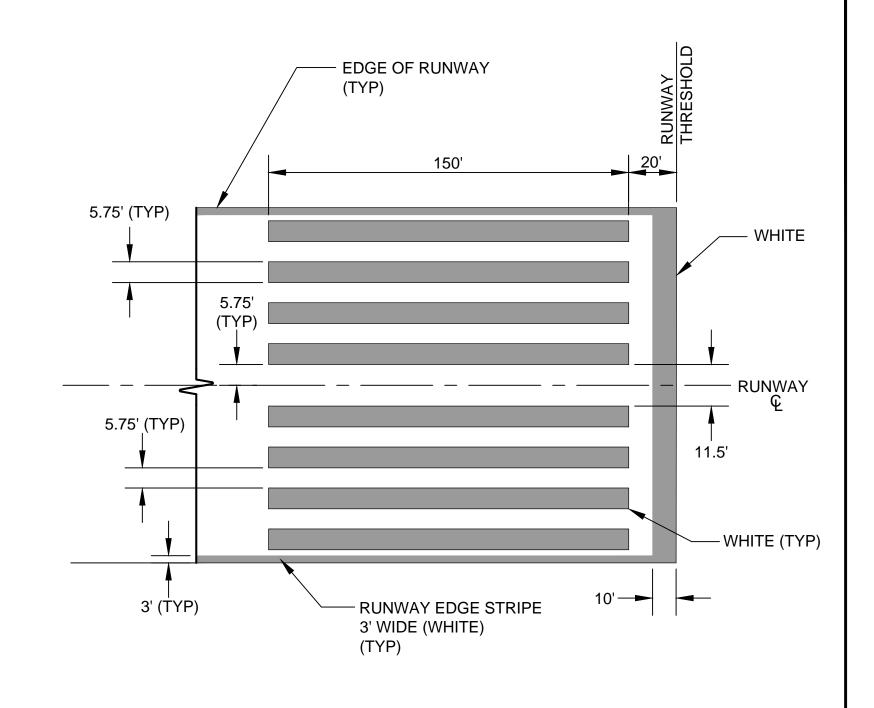
CITY OF MCMINNVILLE MCMINNVILLE MUNICIPAL AIRPORT RUNWAY 4-22 REHABILITATION PROJECT

PAVEMENT MARKING PLAN STA 23+00 TO STA 45+50



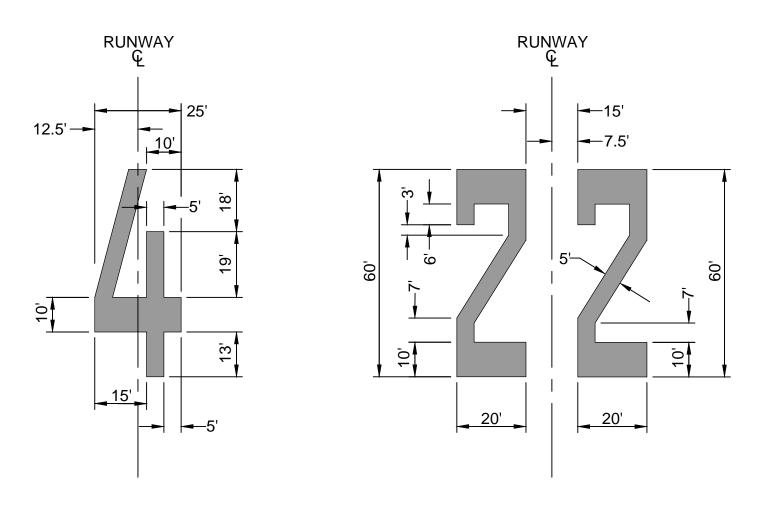


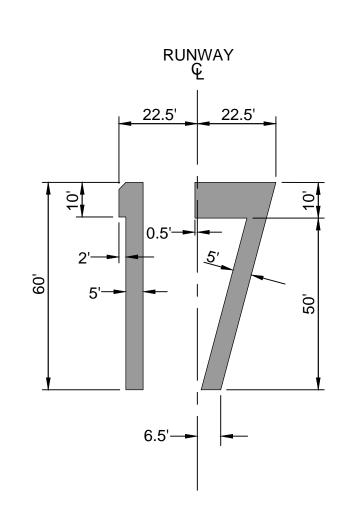




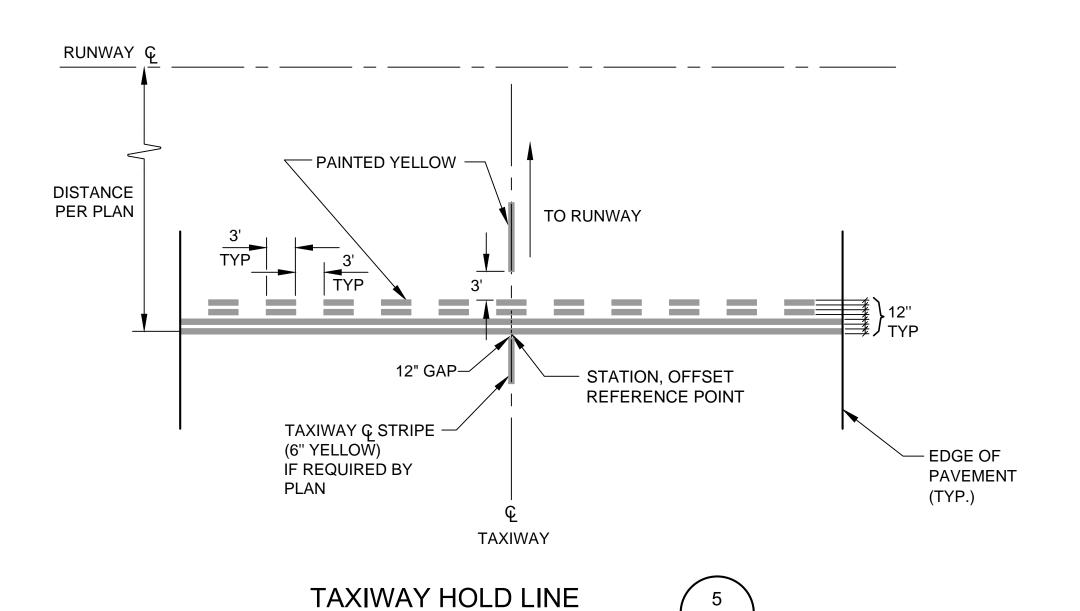
AIMING POINT MARKINGS N.T.S. C-50 TOUCHDOWN ZONE MARKINGS C-50

RUNWAY THRESHOLD MARKING C-50





NOTES:



C-50

RUNWAY DESIGNATION NUMERALS

C-50

- 1. ALL CHARACTERS HAVE THE FOLLOWING WIDTH: VERTICAL STROKE-5' HORIZONTAL STROKE-10' DIAGONAL STROKE-5'
- 2. RUNWAY NUMERALS ARE TO BE PAINTED WHITE.





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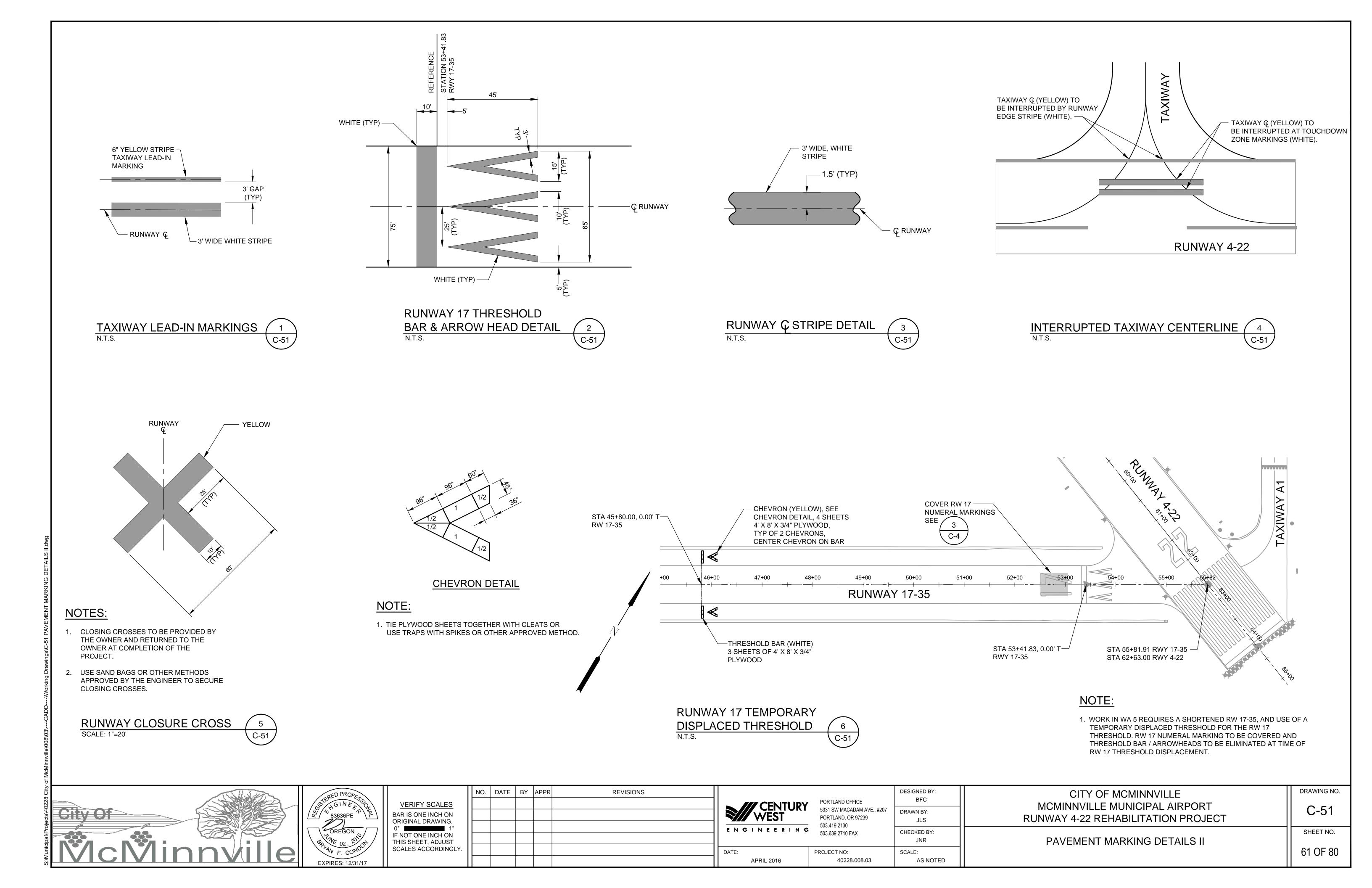
DESIGNED BY: BFC PORTLAND OFFICE 5331 SW MACADAM AVE., #207 DRAWN BY: PORTLAND, OR 97239 JLS 503.419.2130 CHECKED BY: 503.639.2710 FAX JNR PROJECT NO: SCALE:

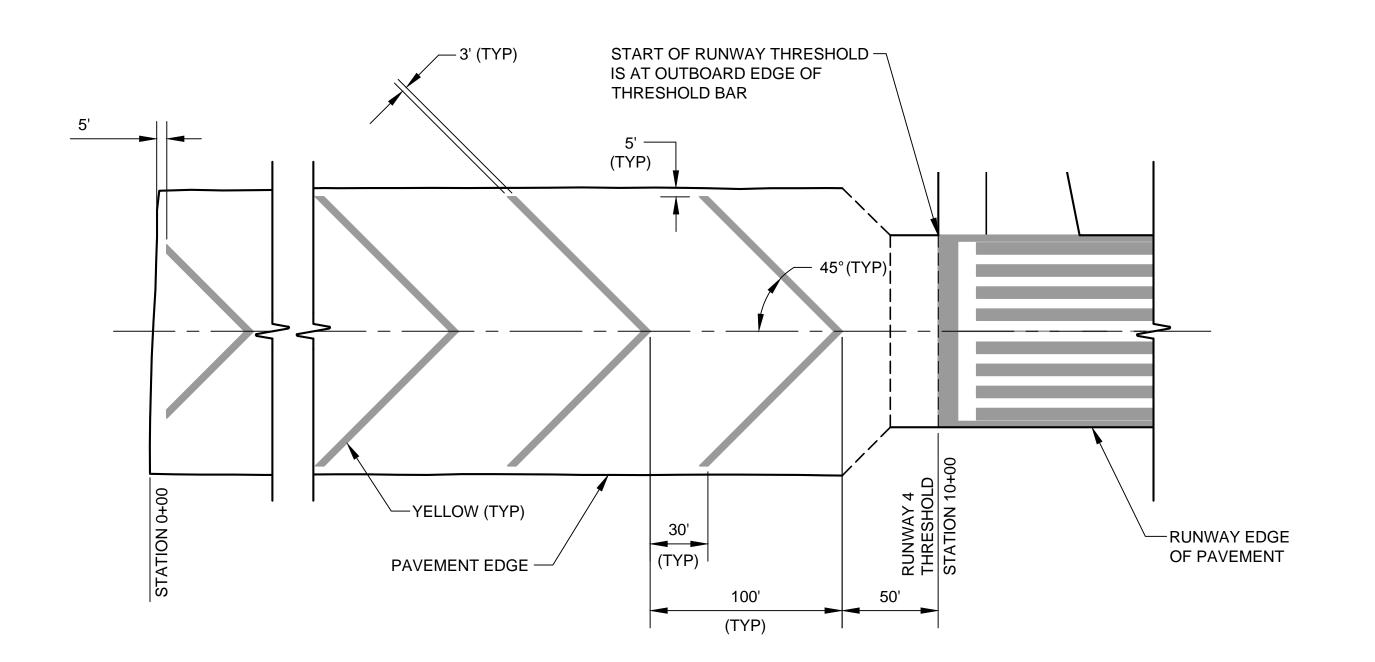
AS NOTED

40228.008.03

CITY OF MCMINNVILLE DRAWING NO. MCMINNVILLE MUNICIPAL AIRPORT C-50 **RUNWAY 4-22 REHABILITATION PROJECT** PAVEMENT MARKING DETAILS I

SHEET NO. 60 OF 80



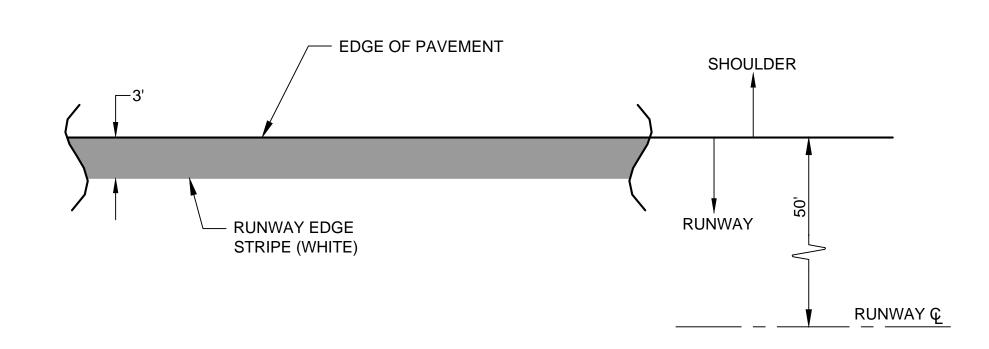


C-52

RUNWAY 4 RSA

N.T.S.

MARKING DETAIL









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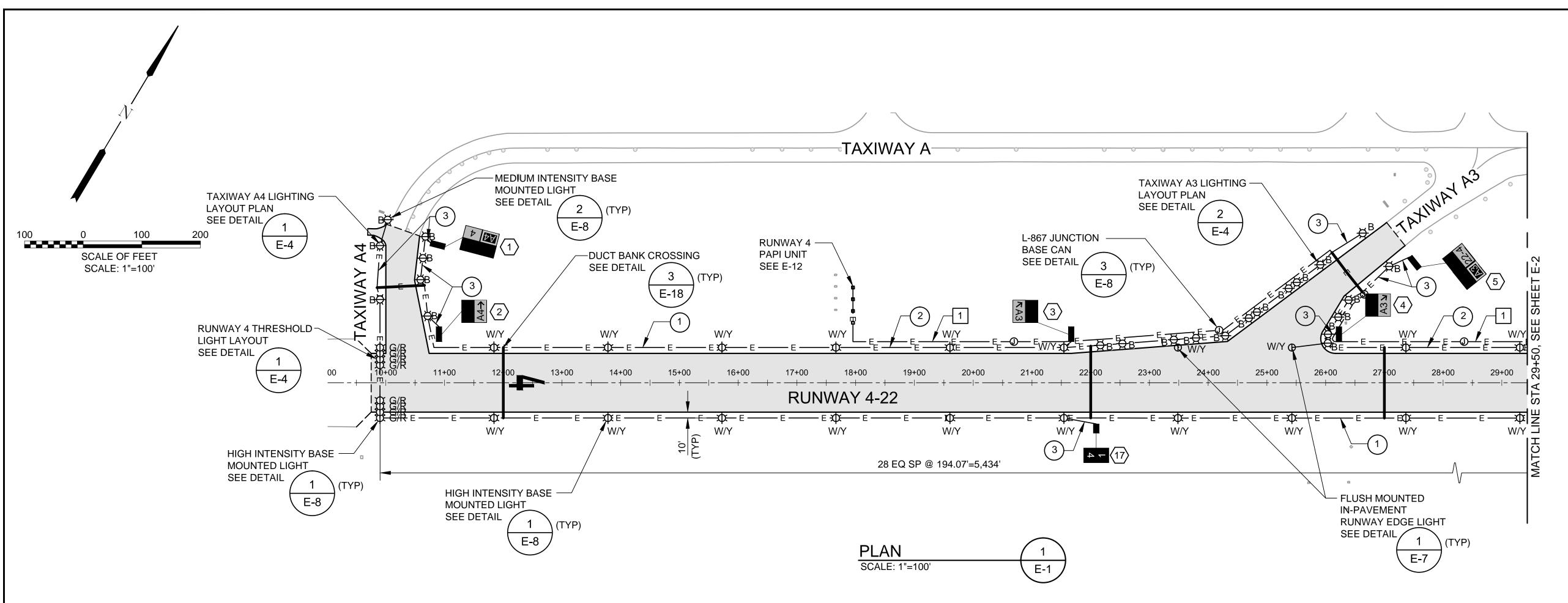
DESIGNED BY: BFC PORTLAND OFFICE 5331 SW MACADAM AVE., #207 DRAWN BY: PORTLAND, OR 97239 JLS 503.419.2130 CHECKED BY: 503.639.2710 FAX JNR PROJECT NO: SCALE: 40228.008.03 AS NOTED

CITY OF MCMINNV	ILLE
MCMINNVILLE MUNICIPAL	_ AIRPORT
RUNWAY 4-22 REHABILITATI	ON PROJECT
PAVEMENT MARKING D	ETAILS III

SHEET NO.

62 OF 80

DRAWING NO.



HIRL CIRCUIT NOTES:

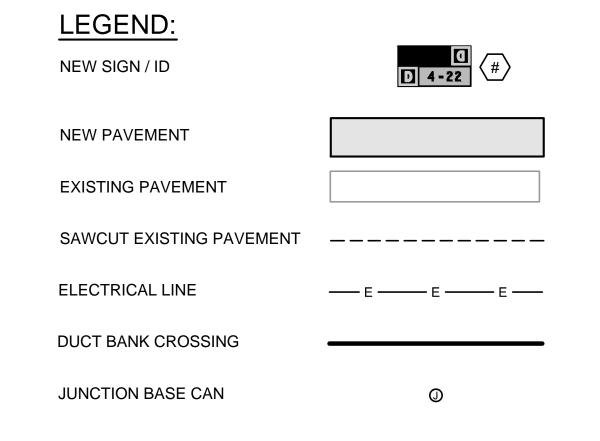
- ONE (1)-2" CONDUIT, ONE (1)-L-824, #8 AWG,
 NON-SHIELDED 5KV RATED CABLE, ONE (1)-#6
 COUNTERPOISE. SEE CKT #14 OF THE CONDUIT AND
 CABLE SCHEDULE.
- ONE (1)-2" CONDUIT, ONE (1)-L-824, #8 AWG,
 NON-SHIELDED 5KV RATED CABLE, ONE (1)-#6
 COUNTERPOISE. CONDUIT MAY BE PLACED IN SAME
 TRENCH AS PAPI CIRCUIT, WHERE POSSIBLE. SEE CKT
 #14 OF THE CONDUIT AND CABLE SCHEDULE.
- ONE (1)-2" CONDUIT, TWO (2)-L-824, #8 AWG,
 NON-SHIELDED 5KV RATED CABLES, ONE (1)-#6
 COUNTERPOISE. CONDUIT MAY BE PLACED IN SAME
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 #14 OF THE CONDUIT AND CABLE SCHEDULE.

PAPI CIRCUIT NOTES:

ONE (1)-2" CONDUIT, TWO (2)-L-824, #8 AWG,
NON-SHIELDED 5KV RATED CABLES, ONE (1)-#6
COUNTERPOISE. CONDUIT MAY BE PLACED IN SAME
TRENCH AS HIRL CIRCUIT. SEE CKT #13 OF THE
CONDUIT AND CABLE SCHEDULE.

LIGHT LEGEND:

TOTAL NUMBER OF FIXTURES		<u>NEW</u>	EXISTING
51	RUNWAY EDGE LIGHT - ELEVATED	W/Y Y/W / W -	⋫
3	RUNWAY EDGE LIGHT - FLUSH MOUNTED	Φ, Φ	Ö
16	RUNWAY THRESHOLD LIGHT	- Д - G/R	☆
39	TAXIWAY EDGE LIGHT	Д В	⋫
11	REFLECTOR	0	®



GENERAL GUIDANCE SIGN NOTES:

- 1. SEE E-9 FOR GUIDANCE SIGN SCHEDULE.
- 2. SEE E-10 FOR GUIDANCE SIGN DETAILS.

GENERAL ELECTRICAL NOTES:

- ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH NEC AND LOCAL ELECTRICAL CODES.
- 2. BID ITEM QUANTITIES ARE BASED ON SINGLE TRENCH/ SINGLE CONDUIT LENGTHS. CONTRACTOR MAY COMBINE TRENCHES. PROVIDE 1' SEPARATION BETWEEN MEDIUM VOLTAGE CIRCUITS AND OTHER CIRCUITS.
- 3. PROPOSED RUNWAY / TAXIWAY EDGE LIGHTS TO BE LOCATED 10' FROM STRUCTURAL EDGE OF PAVEMENT.
- 4. TAXIWAY EDGE LIGHTS ON CURVES ARE EVENLY SPACED FROM PT TO PT AS SHOWN. SEE PLAN AND PROFILE SHEETS FOR PAVEMENT GEOMETRY.



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VERIFY SCALES

BAR IS ONE INCH ON
ORIGINAL DRAWING.
0" 1"
IF NOT ONE INCH ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY.

	NO.	DATE	BY	APPR	REVISIONS	
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CENTURY WEST	50
DATE:	PRC

APRIL 2016

PORTLAND OFFICE
5331 SW MACADAM AVE., #207
PORTLAND, OR 97239
503.419.2130
503.639.2710 FAX
CHECKED BY:
JNR

ROJECT NO:

CESIGNED BY:
BFC

DRAWN BY:
SLK

CHECKED BY:
JNR

AS NOTED

40228.008.03

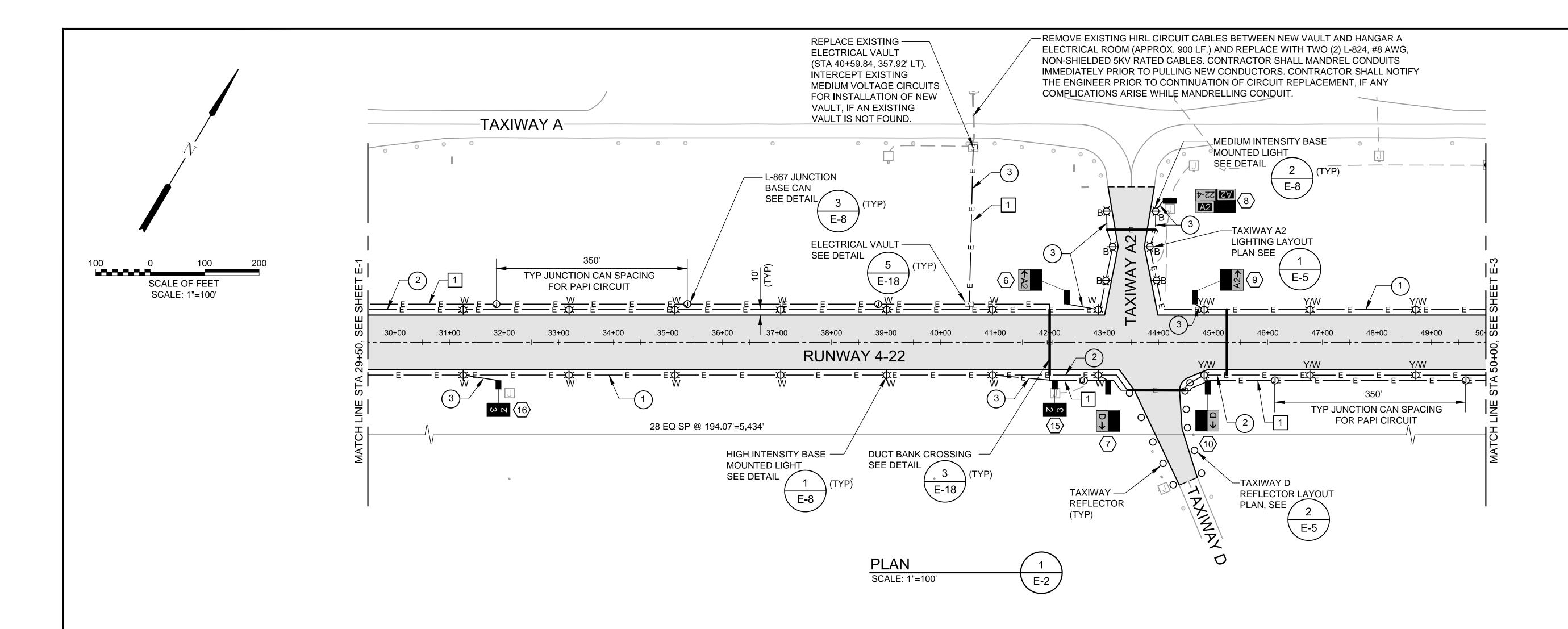
CITY OF MCMINNVILLE MCMINNVILLE MUNICIPAL AIRPORT RUNWAY 4-22 REHABILITATION PROJECT

LIGHTING AND GUIDANCE SIGN PLAN RUNWAY 4-22 STA 9+00 TO STA 29+50 E-1

DRAWING NO.

63 OF 80

SHEET NO.



HIRL CIRCUIT NOTES:

- ONE (1)-2" CONDUIT, ONE (1)-L-824, #8 AWG, NON-SHIELDED 5KV RATED CABLE, ONE (1)-#6 COUNTERPOISE. SEE CKT #14 OF THE CONDUIT AND CABLE SCHEDULE.
- ONE (1)-2" CONDUIT, ONE (1)-L-824, #8 AWG,
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 COUNTERPOISE. CONDUIT MAY BE PLACED IN SAME
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PAPI CIRCUIT NOTES:

ONE (1)-2" CONDUIT, TWO (2)-L-824, #8 AWG,
NON-SHIELDED 5KV RATED CABLES, ONE (1)-#6
COUNTERPOISE. CONDUIT MAY BE PLACED IN SAME
TRENCH AS HIRL CIRCUIT. SEE CKT #13 OF THE
CONDUIT AND CABLE SCHEDULE.

LEGEND: NEW SIGN / ID **NEW PAVEMENT EXISTING PAVEMENT** SAWCUT EXISTING PAVEMENT ELECTRICAL LINE DUCT BANK CROSSING JUNCTION BASE CAN **ELECTRICAL VAULT** V Y/W / W ф/ф RUNWAY EDGE LIGHT - ELEVATED TAXIWAY EDGE LIGHT ₿В **REFLECTOR**

GENERAL GUIDANCE SIGN NOTES:

- 1. SEE E-9 FOR GUIDANCE SIGN SCHEDULE.
- 2. SEE E-10 FOR GUIDANCE SIGN DETAILS.

GENERAL ELECTRICAL NOTES:

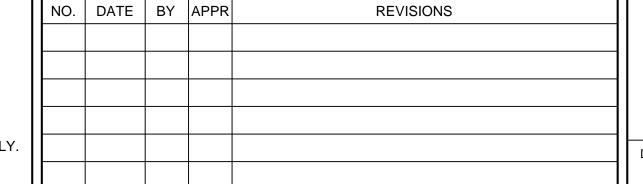
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- 2. BID ITEM QUANTITIES ARE BASED ON SINGLE TRENCH/ SINGLE CONDUIT LENGTHS. CONTRACTOR MAY COMBINE TRENCHES. PROVIDE 1' SEPARATION BETWEEN MEDIUM VOLTAGE CIRCUITS AND OTHER CIRCUITS.
- 3. PROPOSED RUNWAY / TAXIWAY EDGE LIGHTS TO BE LOCATED 10' FROM STRUCTURAL EDGE OF PAVEMENT.
- 4. TAXIWAY EDGE LIGHTS ON CURVES ARE EVENLY SPACED FROM PT TO PT AS SHOWN. SEE PLAN AND PROFILE SHEETS FOR PAVEMENT GEOMETRY.





VERIFY SCALES

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ORIGINAL DRAWING.
0" 1"
IF NOT ONE INCH ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY.





APRIL 2016

PORTLAND OFFICE
5331 SW MACADAM AVE., #207
PORTLAND, OR 97239
503.419.2130
503.639.2710 FAX

PROJECT NO:
40228.008.03

DESIGNED BY:
BFC

DRAWN BY:
SLK

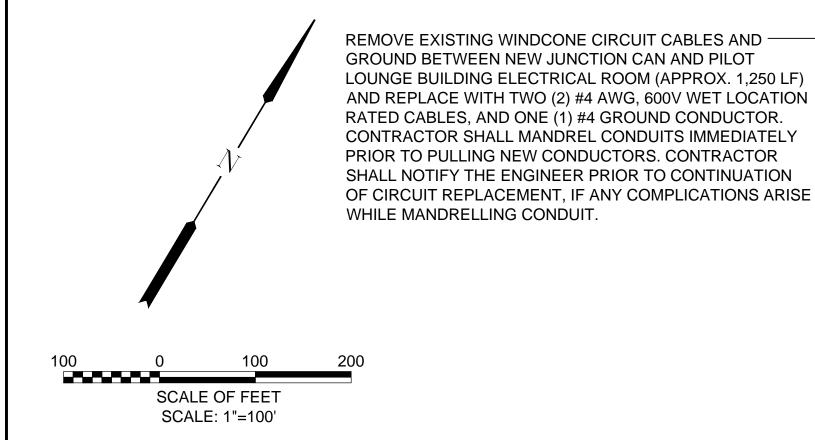
CHECKED BY:
JNR

SCALE:
AS NOTED

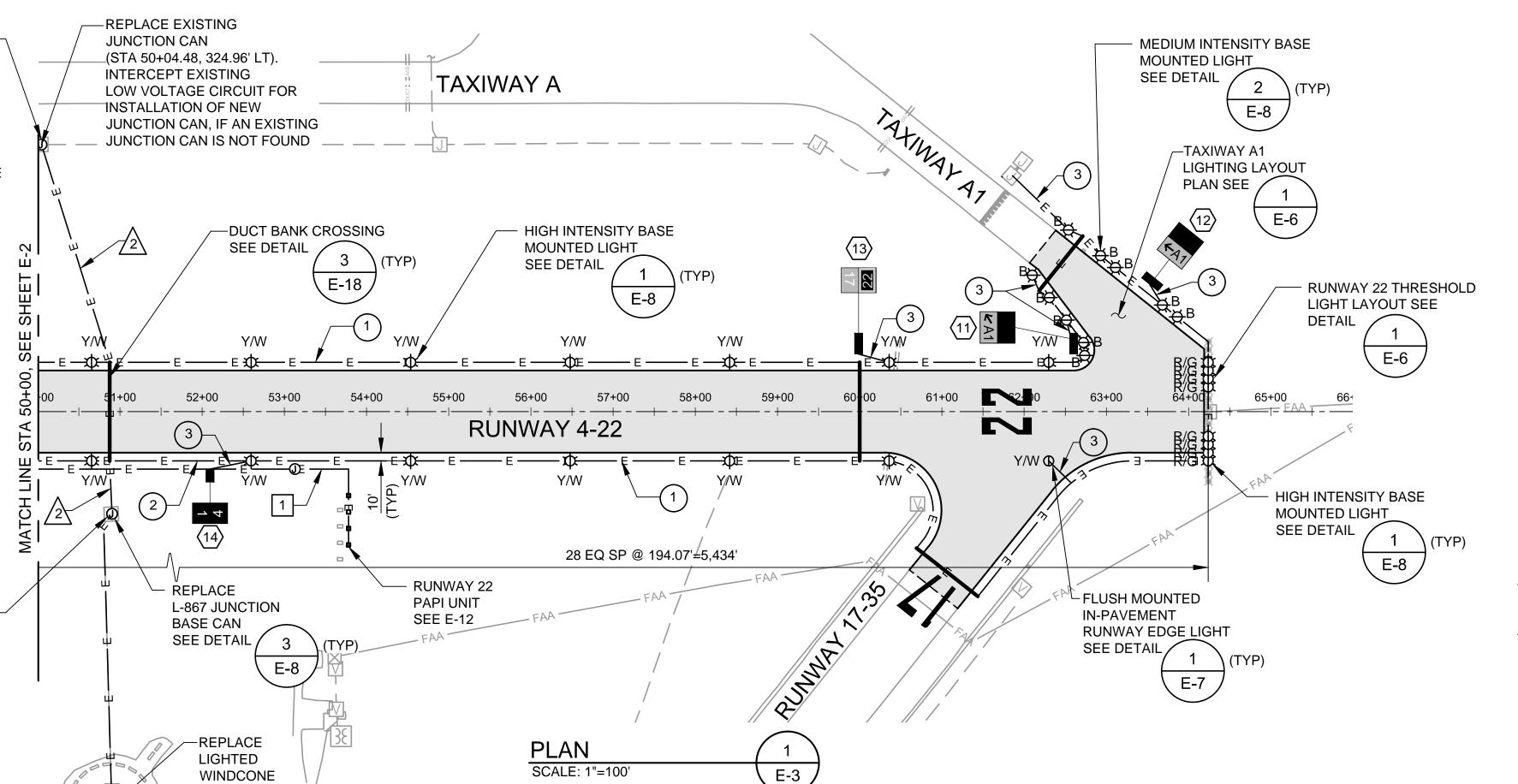
CITY OF MCMINNVILLE MCMINNVILLE MUNICIPAL AIRPORT RUNWAY 4-22 REHABILITATION PROJECT

LIGHTING AND GUIDANCE SIGN PLAN RUNWAY 4-22 STA 29+50 to STA 50+00 E-2
SHEET NO.

DRAWING NO.



REMOVE EXISTING WINDCONE CIRCUIT CABLES AND GROUND BETWEEN NEW JUNCTION CAN AND LIGHTED WINDCONE (APPROX. 358 LF) AND REPLACE WITH TWO (2) #4 AWG, 600V WET LOCATION RATED CABLES, AND ONE (1) #4 GROUND CONDUCTOR. CONTRACTOR SHALL MANDREL CONDUITS IMMEDIATELY PRIOR TO PULLING NEW CONDUCTORS. CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONTINUATION OF CIRCUIT REPLACEMENT, IF ANY COMPLICATIONS ARISE WHILE MANDRELLING CONDUIT.



HIRL CIRCUIT NOTES:

- ONE (1)-2" CONDUIT, ONE (1)-L-824, #8 AWG, NON-SHIELDED 5KV RATED CABLE, ONE (1)-#6 COUNTERPOISE. SEE CKT #14 OF THE CONDUIT AND CABLE SCHEDULE.
- ONE (1)-2" CONDUIT, ONE (1)-L-824, #8 AWG, NON-SHIELDED 5KV RATED CABLE, ONE (1)-#6 COUNTERPOISE. CONDUIT MAY BE PLACED IN SAME TRENCH AS PAPI CIRCUIT, WHERE POSSIBLE. SEE CKT #14 OF THE CONDUIT AND CABLE SCHEDULE.
- ONE (1)-2" CONDUIT, TWO (2)-L-824, #8 AWG, NON-SHIELDED 5KV RATED CABLES, ONE (1)-#6 COUNTERPOISE. CONDUIT MAY BE PLACED IN SAME TRENCH AS PAPI CIRCUIT, WHERE POSSIBLE. SEE CKT #14 OF THE CONDUIT AND CABLE SCHEDULE.

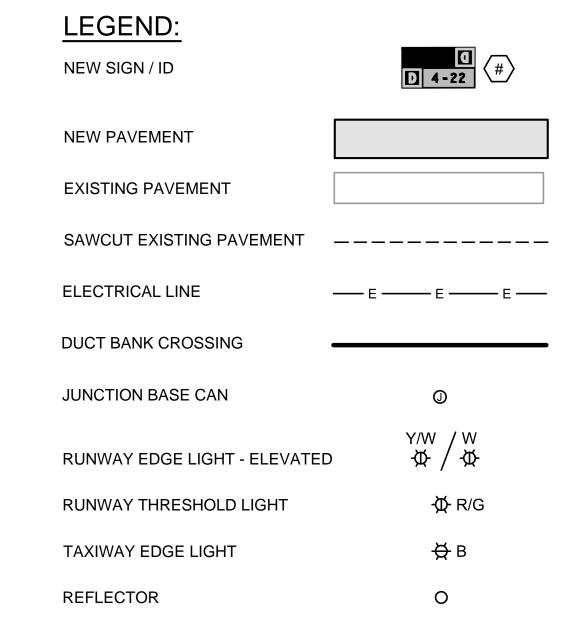
PAPI CIRCUIT NOTES:

ONE (1)-2" CONDUIT, TWO (2)-L-824, #8 AWG, NON-SHIELDED 5KV RATED CABLES. ONE (1)-#6 COUNTERPOISE. CONDUIT MAY BE PLACED IN SAME TRENCH AS HIRL CIRCUIT. SEE CKT #13 OF THE CONDUIT AND CABLE SCHEDULE.

LIGHTED WINDCONE CIRCUIT NOTES:

EXISTING LIGHTED WINDCONE TO REMAIN IN SERVICE UNTIL INSTALLATION OF NEW UNIT.

ONE (1)-2" CONDUIT, TWO (2) #4 AWG, 600V WET LOCATION RATED CABLES, ONE (1) #4 GROUND CONDUCTOR. SEE CKT #19 OF THE CONDUIT AND CABLE SCHEDULE.



GENERAL GUIDANCE SIGN NOTES:

- 1. SEE E-9 FOR GUIDANCE SIGN SCHEDULE.
- 2. SEE E-10 FOR GUIDANCE SIGN DETAILS.

GENERAL ELECTRICAL NOTES:

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- 3. PROPOSED RUNWAY / TAXIWAY EDGE LIGHTS TO BE LOCATED 10' FROM STRUCTURAL EDGE OF PAVEMENT.
- 4. TAXIWAY EDGE LIGHTS ON CURVES ARE EVENLY SPACED FROM PT TO PT AS SHOWN. SEE PLAN AND PROFILE SHEETS FOR PAVEMENT GEOMETRY.





VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY. SEE E-11

NO. DATE BY APPR **REVISIONS**

ENGINEERING DATE:

APRIL 2016

DESIGNED BY: BFC PORTLAND OFFICE 5331 SW MACADAM AVE., #207 DRAWN BY: PORTLAND, OR 97239 SLK 503.419.2130 CHECKED BY: 503.639.2710 FAX JNR PROJECT NO: SCALE:

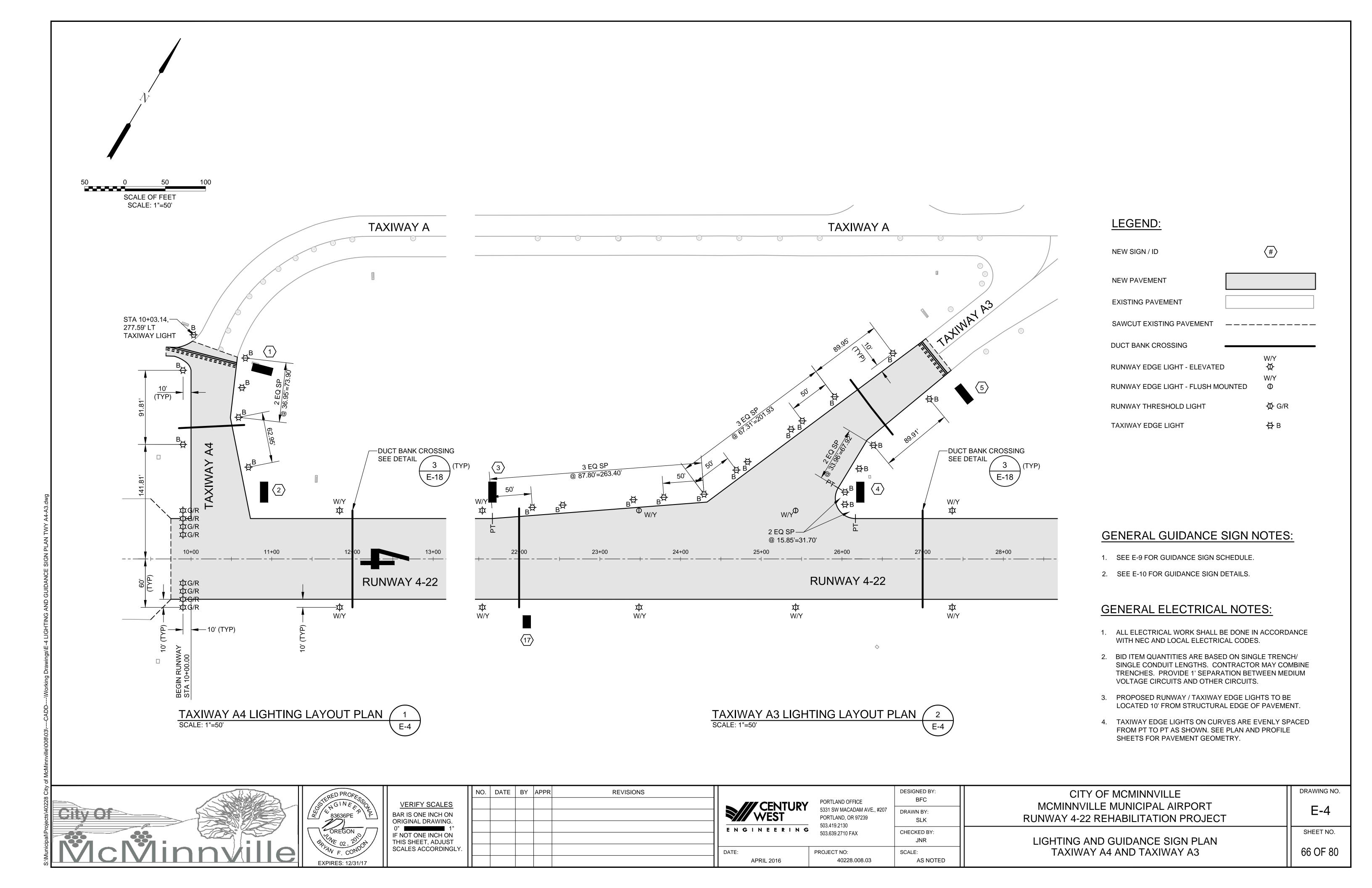
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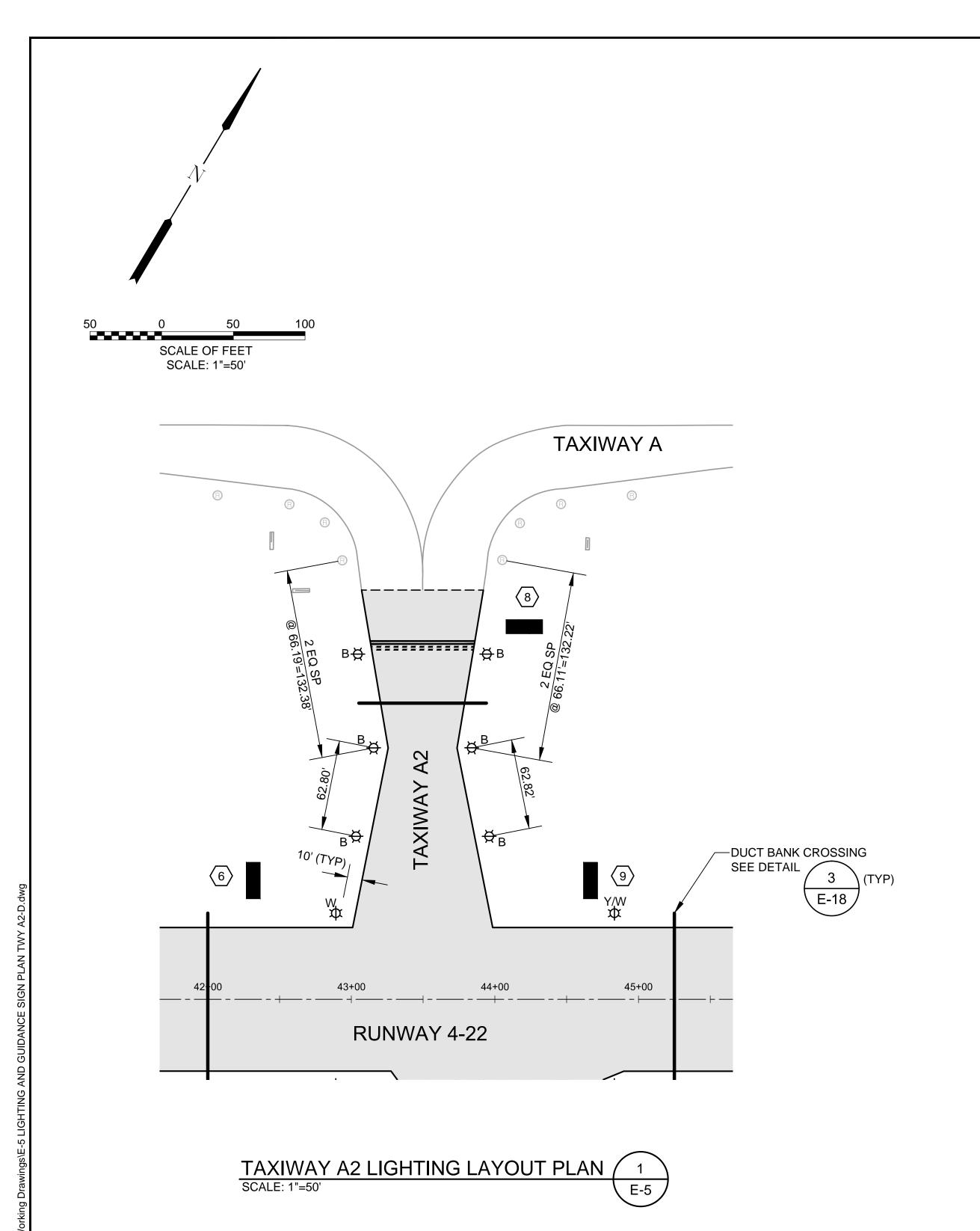
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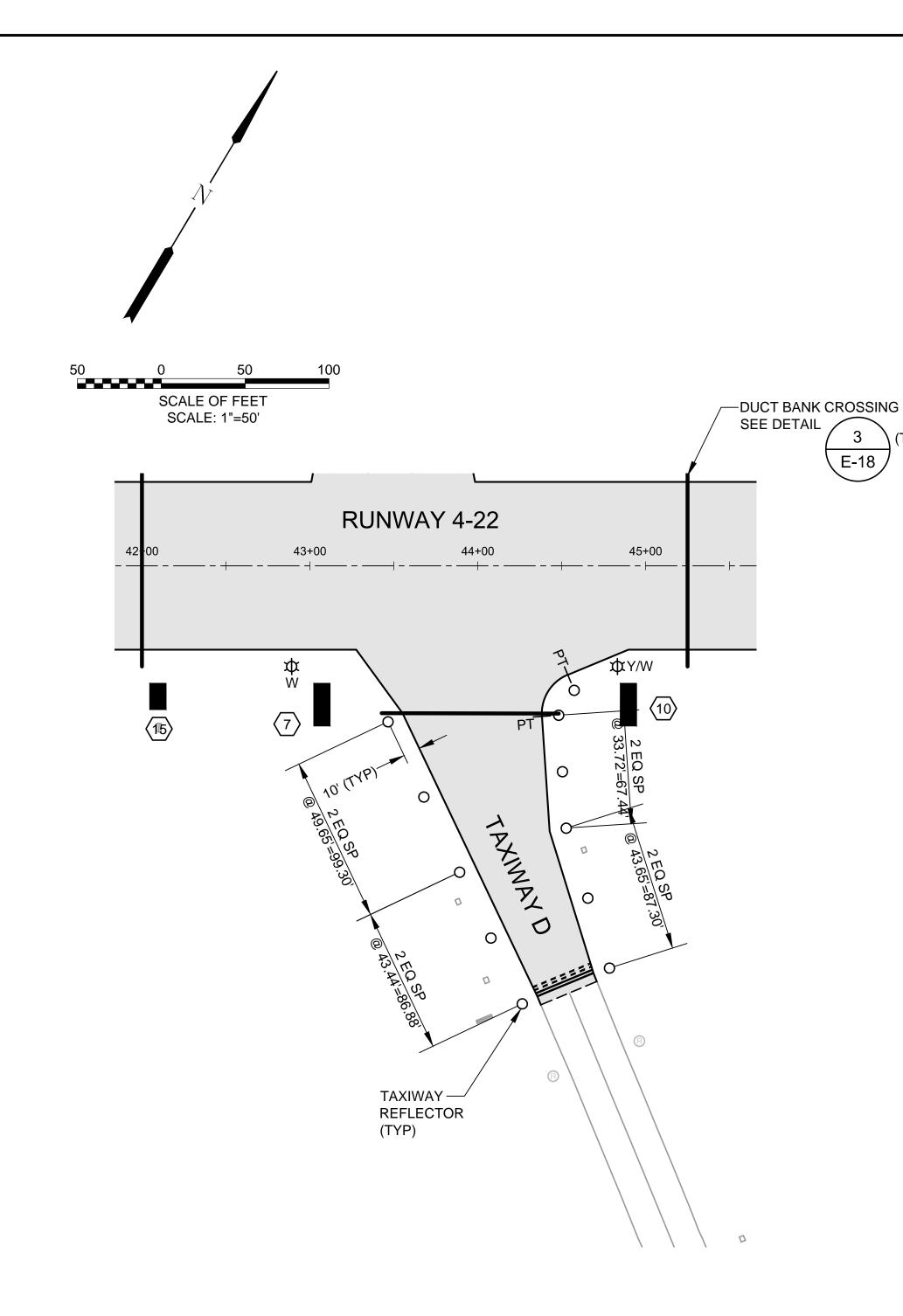
CITY OF MCMINNVILLE MCMINNVILLE MUNICIPAL AIRPORT **RUNWAY 4-22 REHABILITATION PROJECT**

LIGHTING AND GUIDANCE SIGN PLAN RUNWAY 4-22 STA 50+00 TO STA 66+00 SHEET NO.

DRAWING NO.







GENERAL GUIDANCE SIGN NOTES:

(#)

У/W / ₩ Ф

₿В

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- 1. SEE E-9 FOR GUIDANCE SIGN SCHEDULE.
- 2. SEE E-10 FOR GUIDANCE SIGN DETAILS.

LEGEND:

NEW SIGN / ID

NEW PAVEMENT

EXISTING PAVEMENT

DUCT BANK CROSSING

TAXIWAY EDGE LIGHT

REFLECTOR

SAWCUT EXISTING PAVEMENT

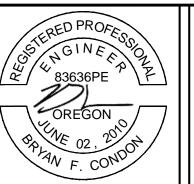
RUNWAY EDGE LIGHT - ELEVATED

GENERAL ELECTRICAL NOTES:

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- 4. TAXIWAY EDGE LIGHTS ON CURVES ARE EVENLY SPACED FROM PT TO PT AS SHOWN. SEE PLAN AND PROFILE SHEETS FOR PAVEMENT GEOMETRY.

TAXIWAY D REFLECTOR LAYOUT PLAN
SCALE: 1"=50'

City Of Section 1987.



VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING.

0" 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

NO. DATE BY APPR REVISIONS



APRIL 2016

PORTLAND OFFICE
5331 SW MACADAM AVE., #207
PORTLAND, OR 97239
503.419.2130
503.639.2710 FAX

PROJECT NO:

DESIGNED BY:
BFC

DRAWN BY:
SLK

CHECKED BY:
JNR

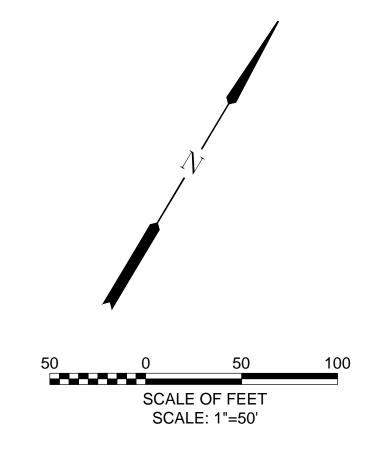
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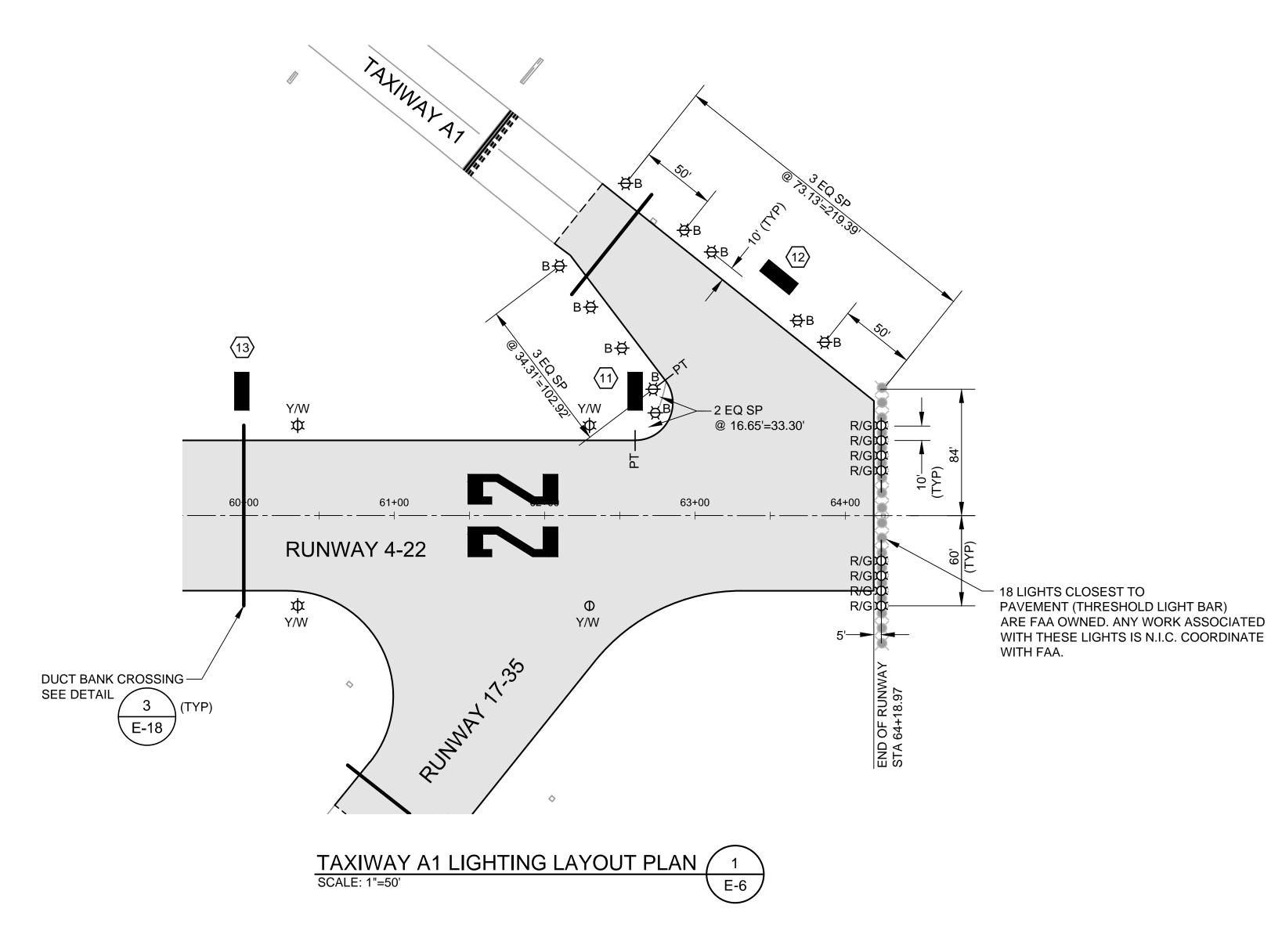
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CITY OF MCMINNVILLE MCMINNVILLE MUNICIPAL AIRPORT RUNWAY 4-22 REHABILITATION PROJECT

LIGHTING AND GUIDANCE SIGN PLAN TAXIWAY A2 AND TAXIWAY D E-5
SHEET NO.

DRAWING NO.





LEGEND:

(#) NEW SIGN / ID **NEW PAVEMENT EXISTING PAVEMENT** SAWCUT EXISTING PAVEMENT **DUCT BANK CROSSING** RUNWAY EDGE LIGHT - ELEVATED RUNWAY EDGE LIGHT - FLUSH MOUNTED RUNWAY THRESHOLD LIGHT -Ж R/G ₿В TAXIWAY EDGE LIGHT

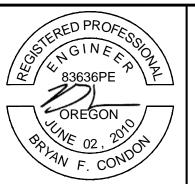
GENERAL GUIDANCE SIGN NOTES:

- 1. SEE E-9 FOR GUIDANCE SIGN SCHEDULE.
- 2. SEE E-10 FOR GUIDANCE SIGN DETAILS.

GENERAL ELECTRICAL NOTES:

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DATE:	PROJECT NO:

APRIL 2016

DESIGNED BY: BFC PORTLAND OFFICE 5331 SW MACADAM AVE., #207 DRAWN BY: PORTLAND, OR 97239 SLK CHECKED BY: JNR SCALE: 40228.008.03 AS NOTED

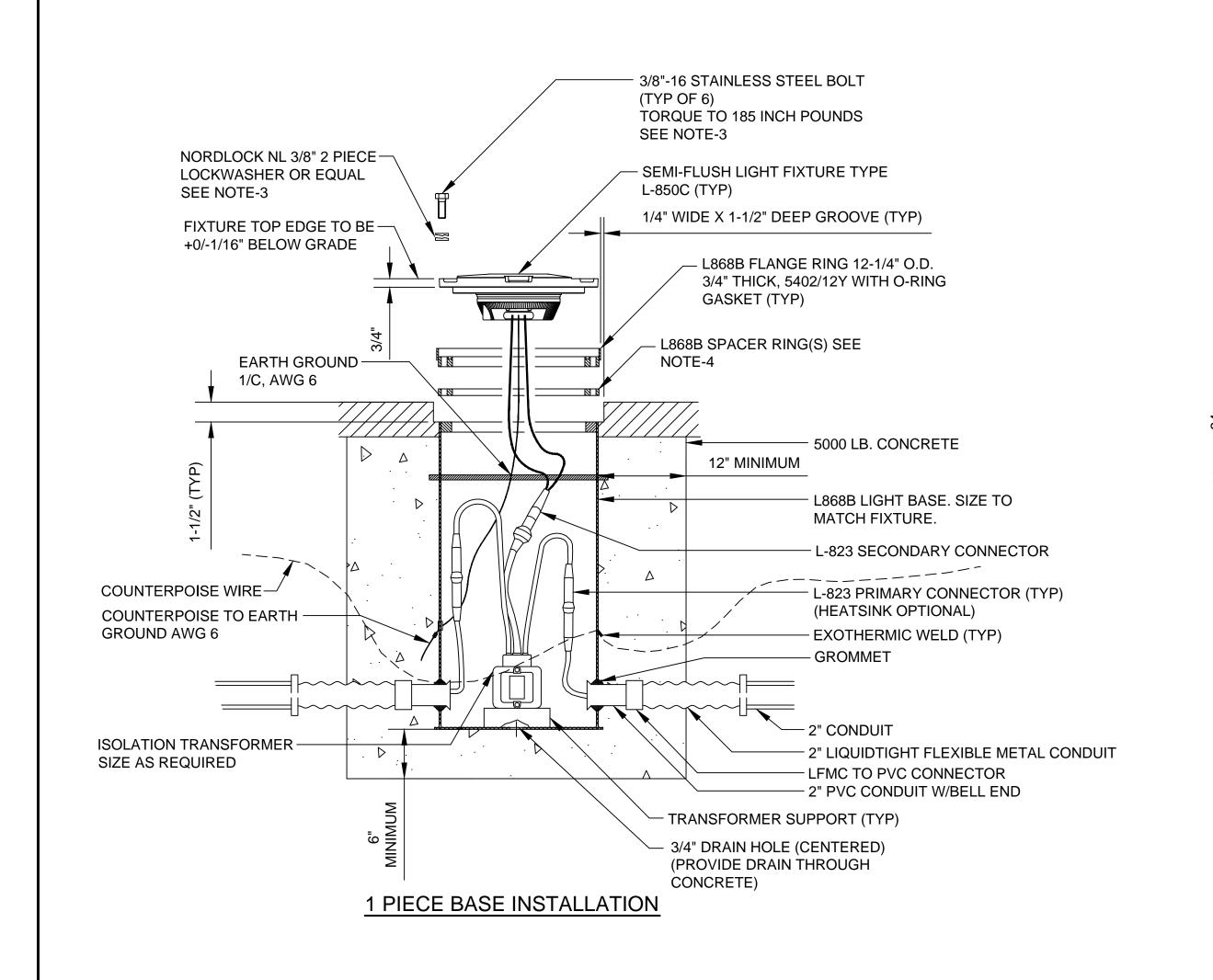
CITY OF MCMINNVILLE MCMINNVILLE MUNICIPAL AIRPORT **RUNWAY 4-22 REHABILITATION PROJECT**

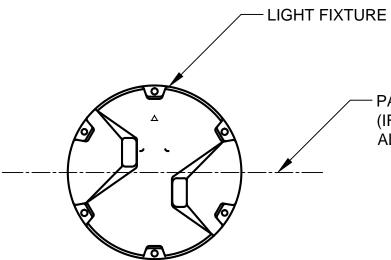
LIGHTING AND GUIDANCE SIGN PLAN **TAXIWAY A1**

DRAWING NO.

68 OF 80

SHEET NO.





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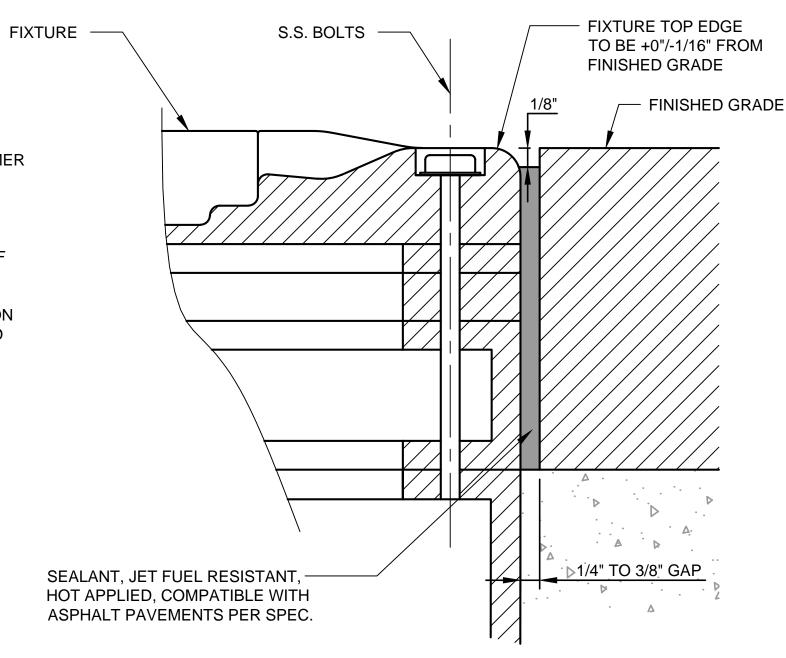
ALIGNMENT)
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(IF APPLICABLE) (VERIFY EXACT BASE

LIGHT DETAIL NOTES:

PARALLEL WITH RUNWAY/TAXIWAY CENTERLINE

- 1. LIGHT BASES SHALL BE INSTALLED WITH CARE TO ASSURE VERTICAL AND AZIMUTH ALIGNMENT OF FIXTURE.
- 2. PROVIDE 3' CABLE SLACK WITHIN LIGHT BASE TO ALLOW TRANSFORMER SERVICING.
- 3. BOLTS AND WASHERS USED DURING INSTALLATION OF BASE, CABLE AND TRANSFORMERS SHALL BE REPLACED WITH NEW, FOR FINAL INSTALLATION. MINIMUM THREAD ENGAGEMENT INTO TOP FLANGE OF BASE IS 1/2".
- . AS REQUIRED TO MAINTAIN +0/-1/16" BELOW GRADE FAA INSTALLATION TOLERANCE. A MAXIMUM OF THREE SPACER RINGS MAY BE STACKED TOGETHER.



JOINT DETAIL

REFERENCE DIMENSIONS

IN-PAVEMENT FIXTURE INSTALLATION L-850C

1 F-7





VERIFY SCALES
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ORIGINAL DRAWING.
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APRIL 2016

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1 SW MACADAM AVE., #207 RTLAND, OR 97239 .419.2130	DRAWN BY: JLS
.639.2710 FAX	CHECKED BY: JNR
ECT NO: 40228.008.03	SCALE: AS NOTED

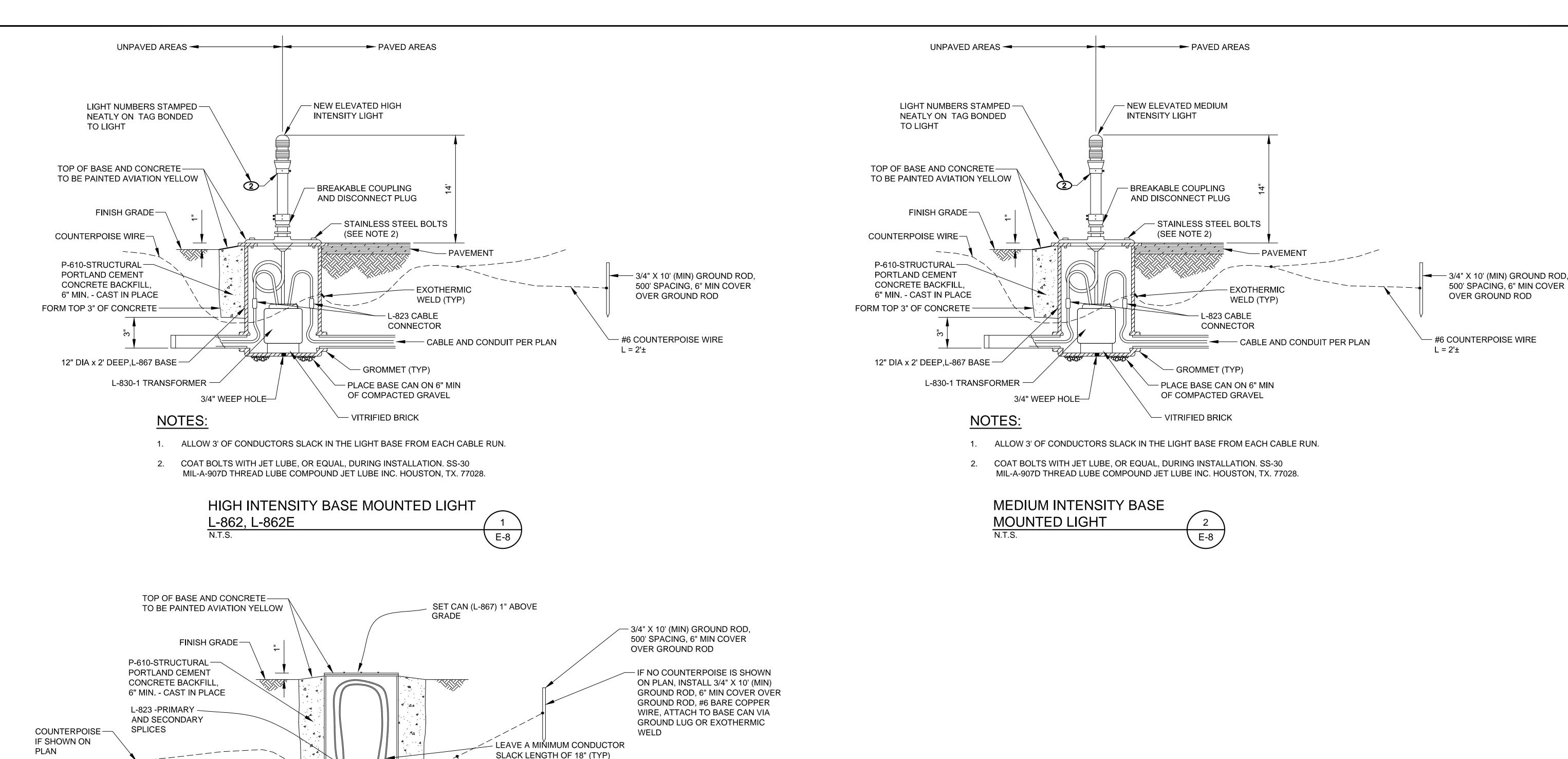
CITY OF MCMINNVILLE
MCMINNVILLE MUNICIPAL AIRPORT
RUNWAY 4-22 REHABILITATION PROJECT

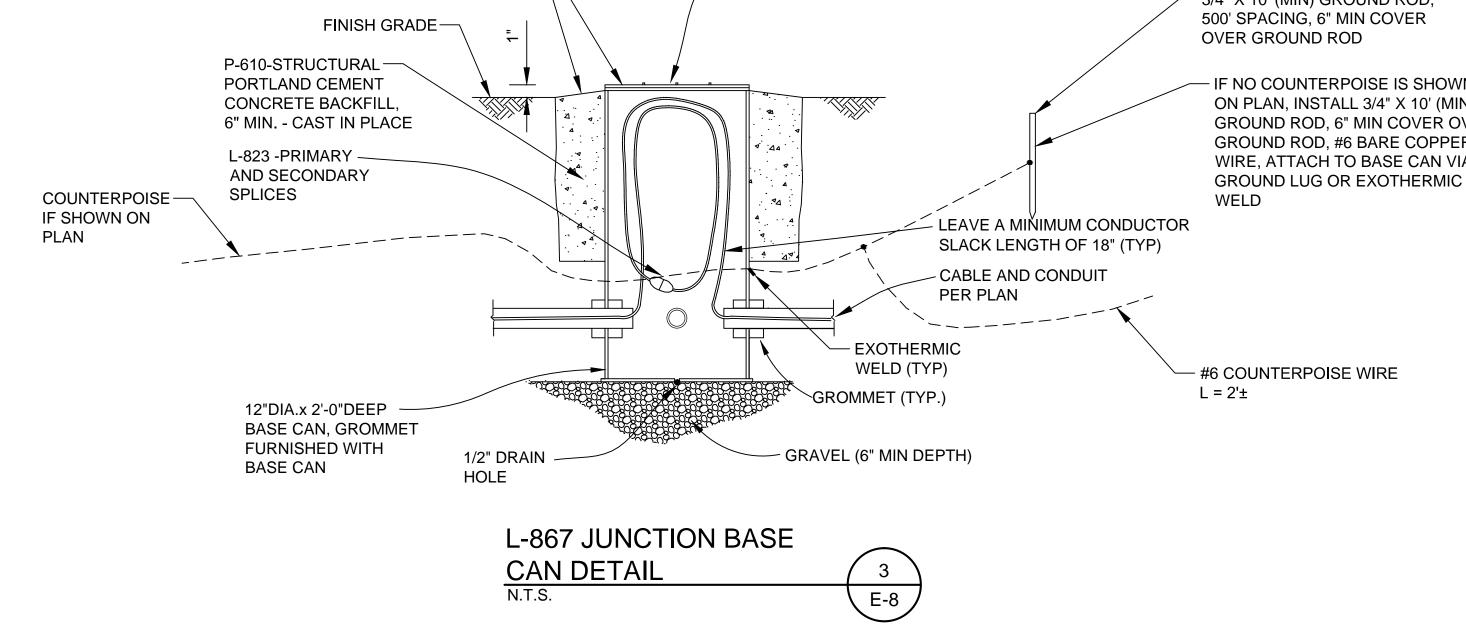
4-22 REHABILITATION PROJECT

SHEET NO.

69 OF 80

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OREGON

EXPIRES: 12/31/17

VERIFY SCALES

BAR IS ONE INCH ON

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NO. DATE BY APPR

REVISIONS

PORTLAND OFFICE
5331 SW MACADAM A
PORTLAND, OR 9723
503.419.2130
503.639.2710 FAX

DATE:

PROJECT NO:

APRIL 2016

PORTLAND OFFICE

5331 SW MACADAM AVE., #207

PORTLAND, OR 97239

503.419.2130

503.639.2710 FAX

PROJECT NO:

40228.008.03

DESIGNED BY:

BFC

DRAWN BY:

JUS

CHECKED BY:
JNR

SCALE:
AS NOTED

CITY OF MCMINNVILLE

MCMINNVILLE MUNICIPAL AIRPORT
RUNWAY 4-22 REHABILITATION PROJECT

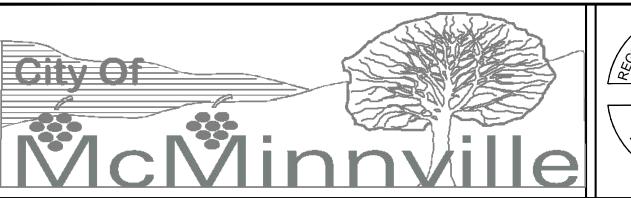
LIGHTING DETAILS II

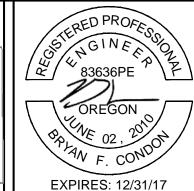
DRAWING NO.

E-8

SHEET NO.

70 OF 80





VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

ı	NO.	DATE	BY	APPR	REVISIONS

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5331 SW MACADAM PORTLAND, OR 9723 ENGINEERING 503.639.2710 FAX DATE: PROJECT NO: APRIL 2016

ALIGNMENT/

STATION

TWY A4

3+62.32

RWY 4-22

10+90.50

RWY 4-22

21+66.90

RWY 4-22

26+22.69

TWY A3 3+41.13

RWY 4-22

42+31.65

RWY 4-22

43+07.22

TWY A2

2+40.50

RWY 4-22

44+66.65

RWY 4-22

44+89.82

RWY 4-22

62+60.24

TWY A1

5+75.55

RWY 4-22

59+98.65

RWY 4-22

52+09.47

RWY 4-22

42+09.50

RWY 4-22

31+89.50

RWY 4-22

22+09.50

NEW SIGN COLORS

YELLOW ON BLACK / WHITE ON RED

BLACK

BLACK ON YELLOW

BLACK

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BLACK ON YELLOW

BLACK ON YELLOW

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YELLOW ON BLACK / WHITE ON RED

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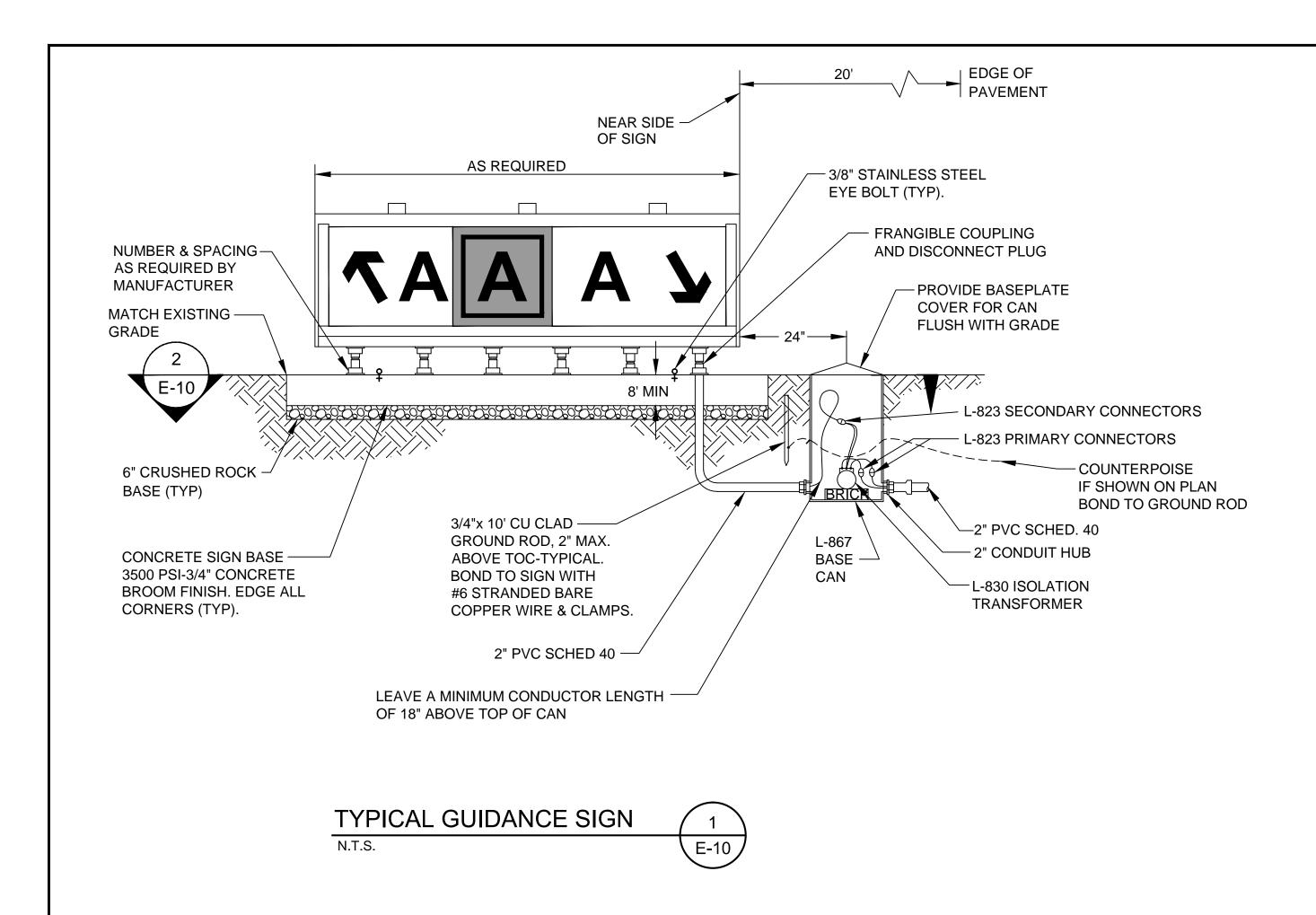
LAND OFFICE	DESIGNED BY: BFC	
SW MACADAM AVE., #207 LAND, OR 97239 9.2130	DRAWN BY: JLS	
9.2710 FAX	CHECKED BY: JNR	
CT NO: 40228.008.03	SCALE: AS NOTED	

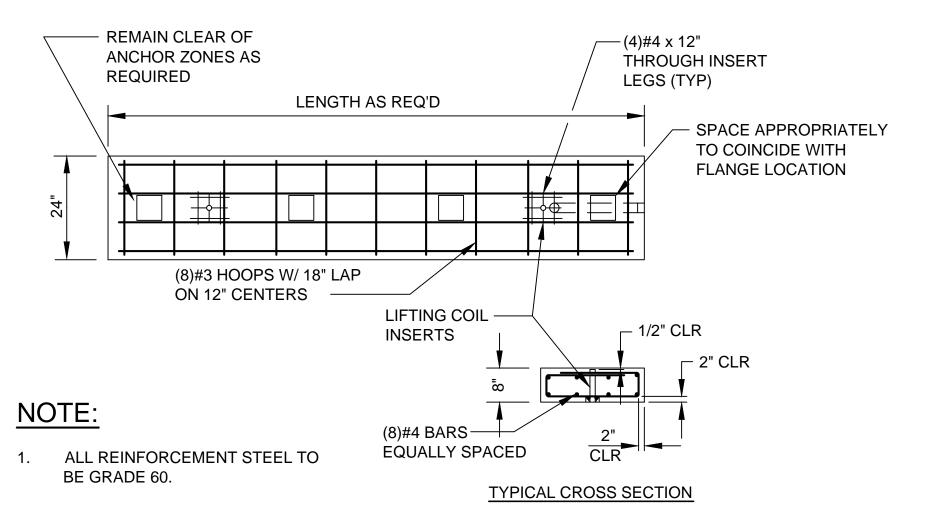
CITY OF MCMINNVILLE MCMINNVILLE MUNICIPAL AIRPORT **RUNWAY 4-22 REHABILITATION PROJECT**

E-9 SHEET NO. **GUIDANCE SIGN SCHEDULE**

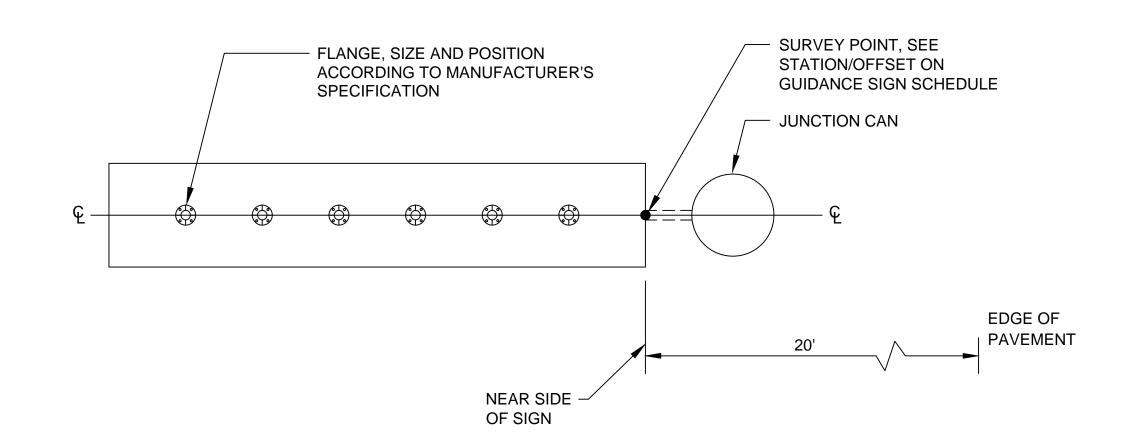
DRAWING NO.

	GUIDANCE SIGN SCHEDULE	1
•		E-8









TYPICAL GUIDANCE SIGN FOUNDATION - TOP

 $\frac{2}{\text{E-10}}$

GUIDANCE SIGN NOTES:

- 1. THE DETAILS SHOWN FOR FOUNDATION DESIGN, ARE PROVIDED FOR CONTRACTOR GUIDANCE. THE CONCRETE MIX, DIMENSIONS, AND REINFORCEMENT SHOWN, ARE MINIMUMS.
- 2. BASED UPON THE SIGN MANUFACTURER'S RECOMMENDATIONS, THE CONTRACTOR SHALL PROVIDE A PROPERLY DESIGNED AND DIMENSIONED PRE-CAST FOUNDATION FOR EACH SIGN SUPPLIED.
- EACH FOUNDATION SHALL HAVE AN EMBEDDED 3/8-INCH STAINLESS
 STEEL TIE-DOWN EYE BOLT, LOCATED WITHIN 6 INCHES OF EACH
 OUTSIDE LEG, AND A MINIMUM OF TWO HEAVY-DUTY EMBEDDED
 LIFTING COILS PLACED AND INSTALLED FOR OPTIMUM WEIGHT DISTRIBUTION.
- 4. THE JUNCTION CAN SHALL BE LOCATED CLEAR OF THE FOUNDATION AND FLUSH WITH THE FINAL GRADE. ADDITIONAL SECONDARY CONDUCTOR LENGTH MAY BE REQUIRED.
- 5. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL IDENTIFY THE HIGHEST ELEVATION WITHIN A 15 FOOT RADIUS OF THE FOUNDATION CENTER. THE FINAL TOP OF FOUNDATION SHALL BE THAT ELEVATION PLUS ONE-TENTH FOOT. NOTIFY THE ENGINEER AT ONCE IF, IN THE CONTRACTOR'S OPINION, THIS LAYOUT METHOD MAY RESULT IN AN ABRUPT CHANGE IN ELEVATION, GREATER THAN 3%. TYPICAL ALL LOCATIONS.





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	NO.	NO. DATE	NO. DATE BY	NO. DATE BY APPR	NO. DATE BY APPR REVISIONS



APRIL 2016

PORTLAND OFFICE
5331 SW MACADAM AVE., #207
PORTLAND, OR 97239
503.419.2130
503.639.2710 FAX

PROJECT NO:

DESIGNED BY:
BFC

DRAWN BY:
JLS

CHECKED BY:
JNR

AS NOTED

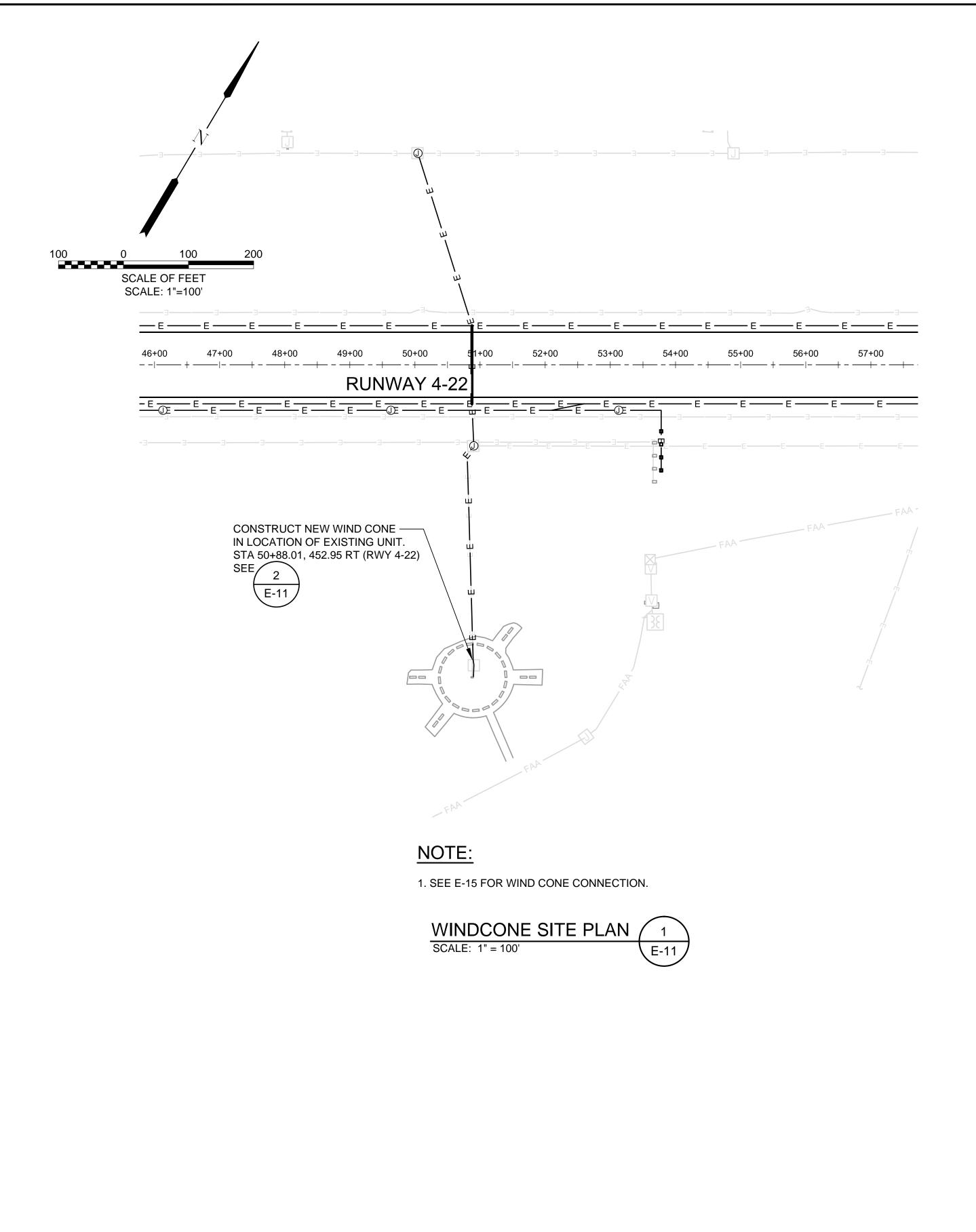
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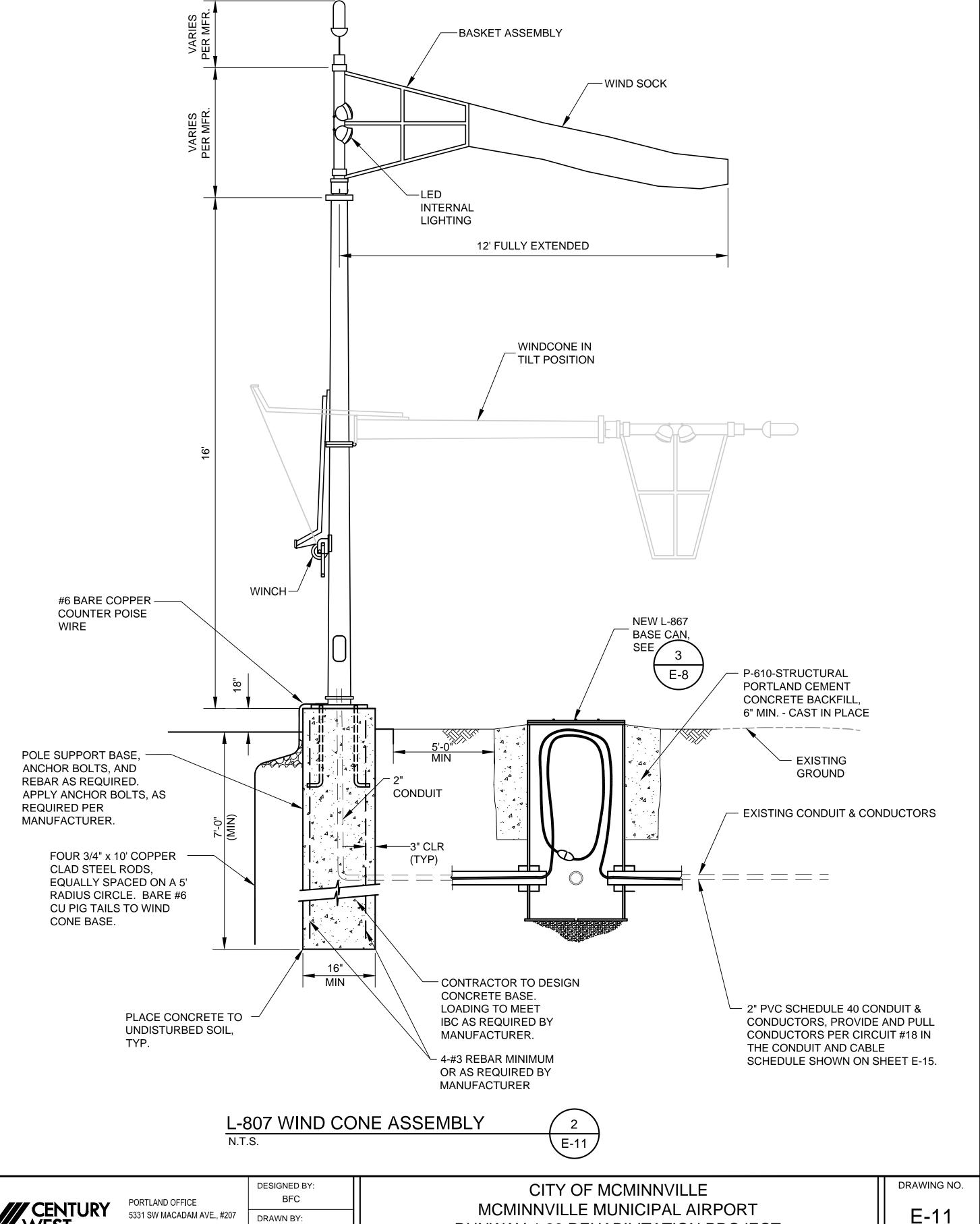
CITY OF MCMINNVILLE MCMINNVILLE MUNICIPAL AIRPORT RUNWAY 4-22 REHABILITATION PROJECT

GUIDANCE SIGN DETAILS

E-10
SHEET NO.

DRAWING NO.









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NO. DATE BY APPR

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DATE:

REVISIONS

CENTURY WEST ENGINEERING

APRIL 2016

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PORTLAND, OR 97239

503.419.2130

503.639.2710 FAX

PROJECT NO:

40228.008.03

BFC

DRAWN BY:

CHECKED BY:

JNR

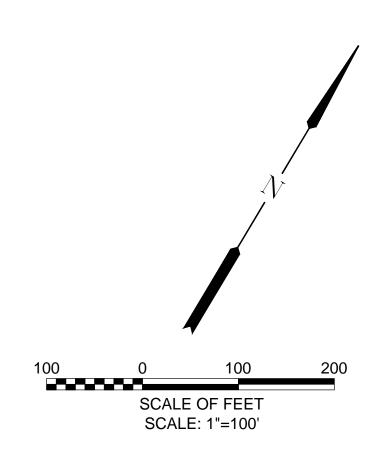
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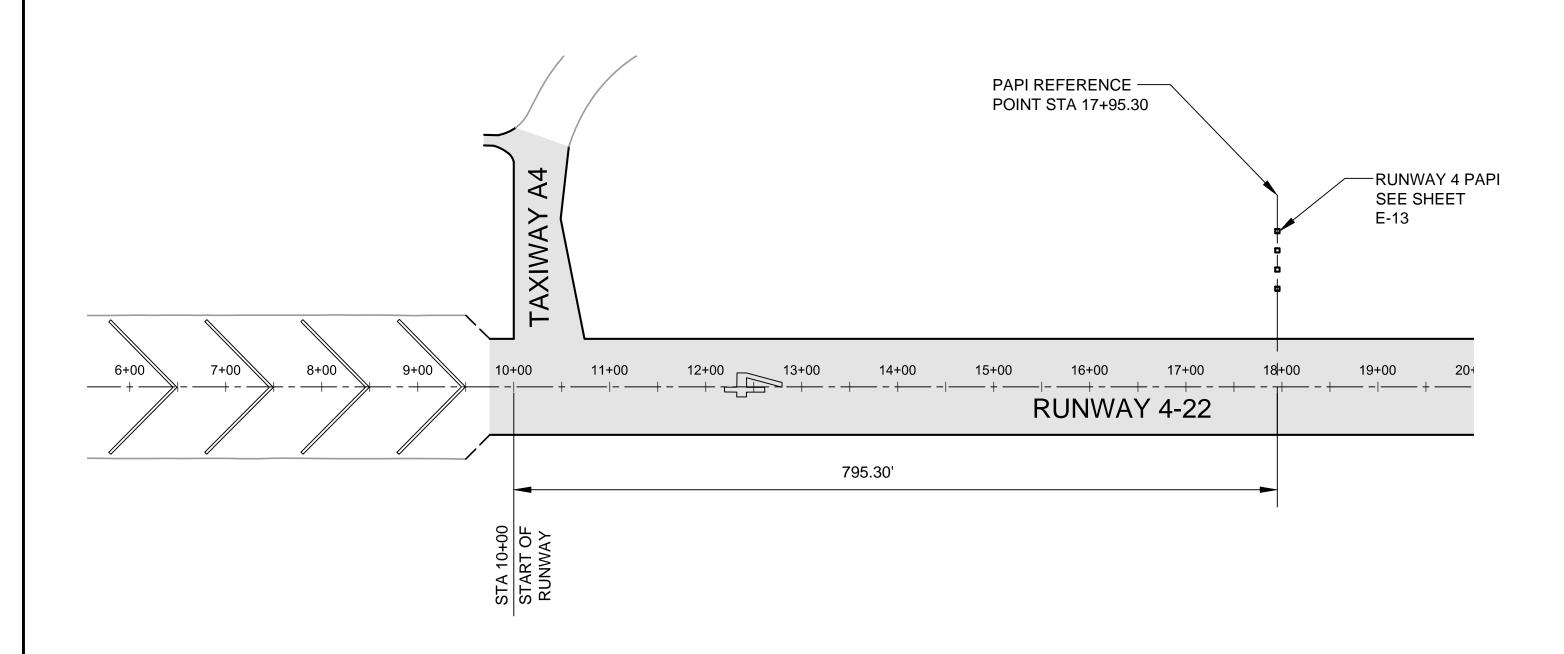
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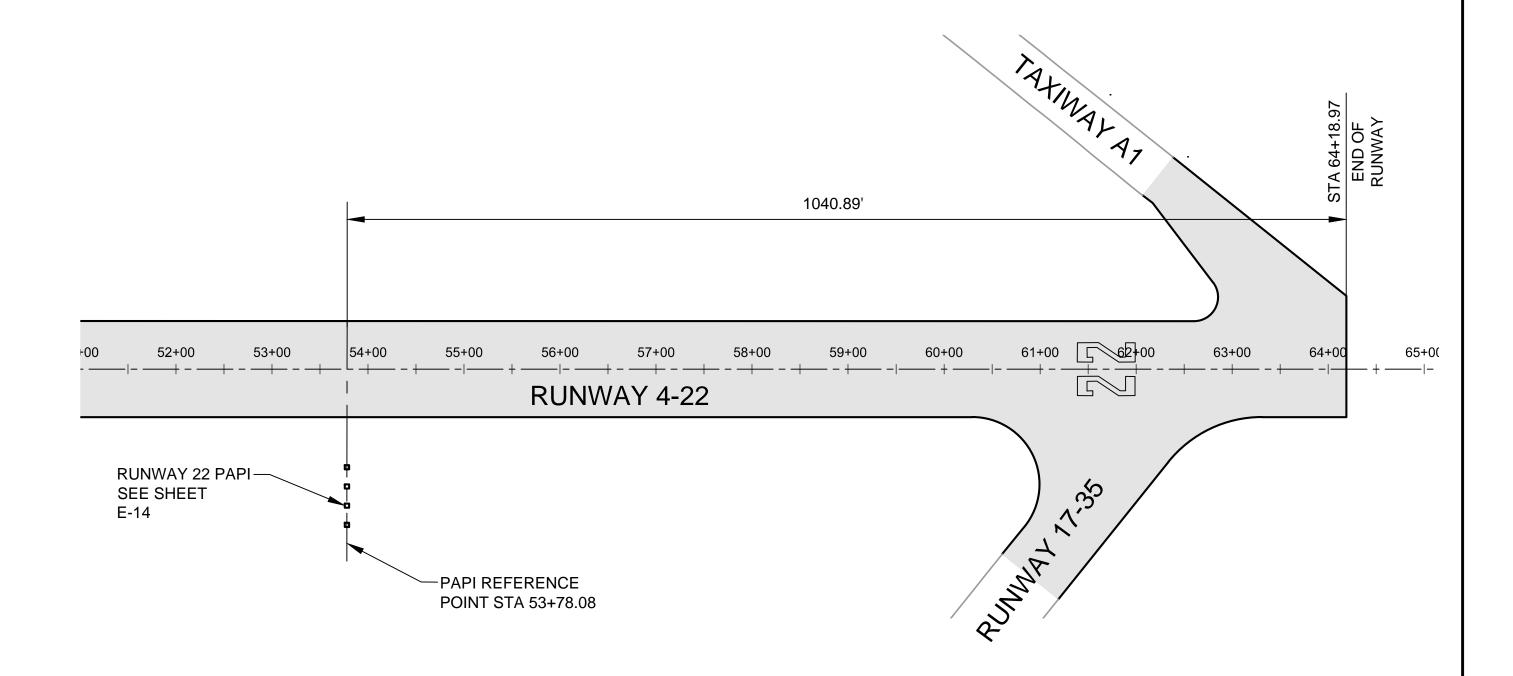
MCMINNVILLE MUNICIPAL AIRPORT
RUNWAY 4-22 REHABILITATION PROJECT

WINDCONE PLAN AND DETAILS

73 OF 80







RUNWAY 4 PAPI LAYOUT PLAN

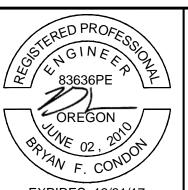
SCALE: 1"=100"

1

E-12

RUNWAY 22 PAPI LAYOUT PLAN 2 SCALE: 1"=100' E-12





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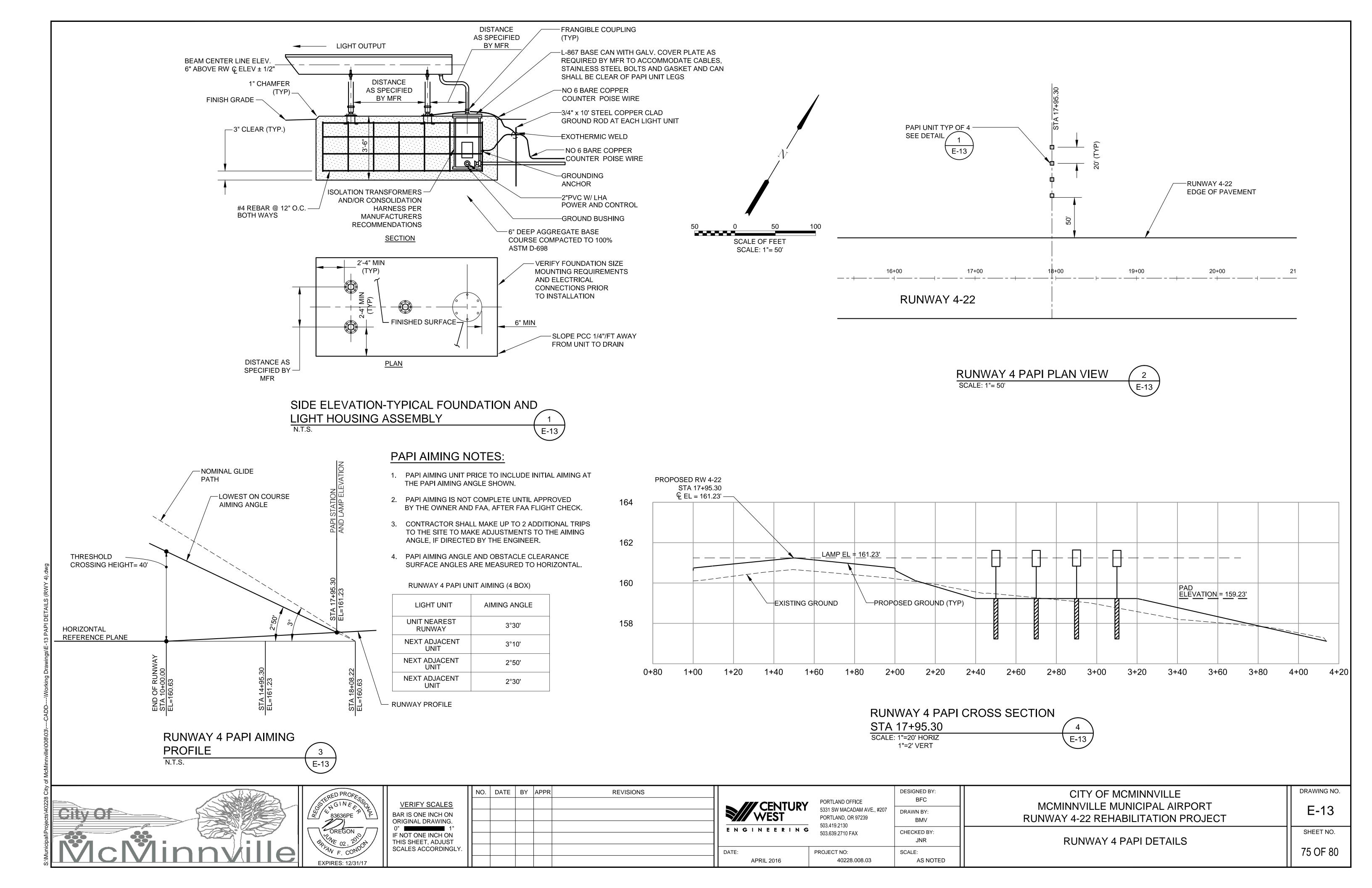
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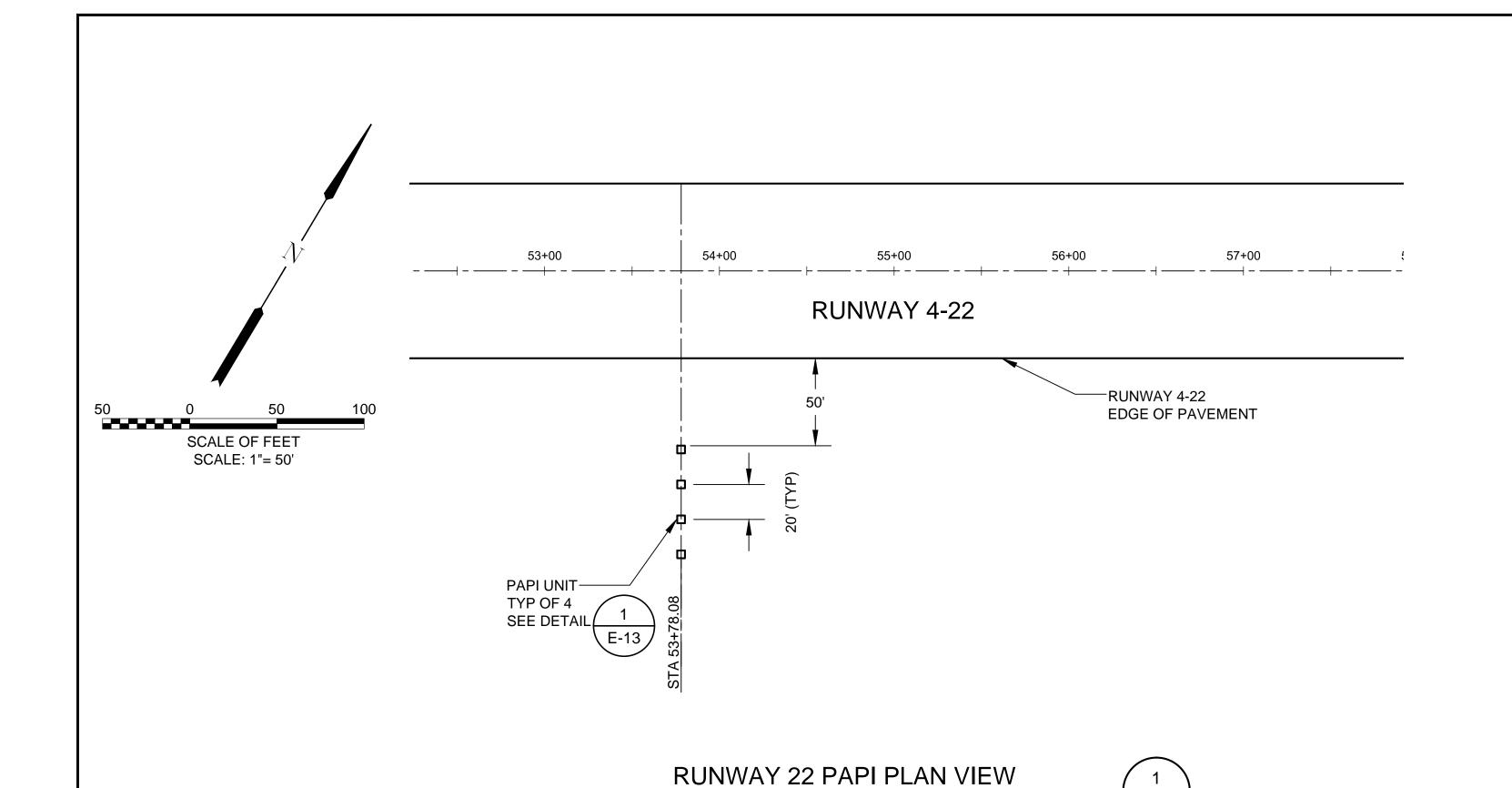
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APRIL 2016

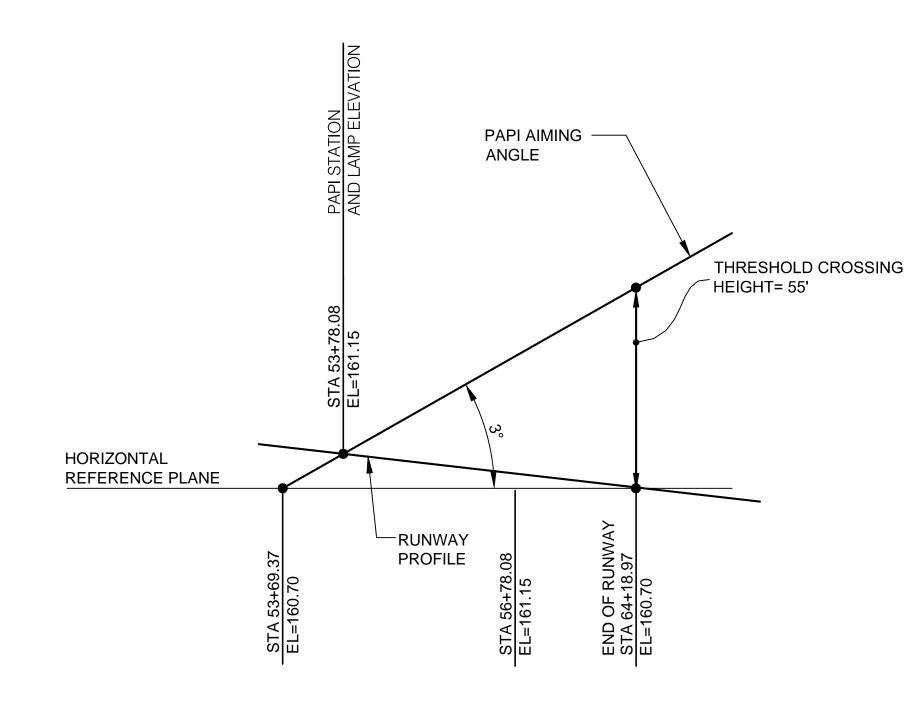
PORTLAND OFFICE	DESIGNED BY: BFC	
5331 SW MACADAM AVE., #207 PORTLAND, OR 97239 503.419.2130	DRAWN BY: BMV	
503.639.2710 FAX	CHECKED BY: JNR	
ROJECT NO: 40228.008.03	SCALE: AS NOTED	

CITY OF MCMINNVILLE	DRAWING NO.
MCMINNVILLE MUNICIPAL AIRPORT	E-12
RUNWAY 4-22 REHABILITATION PROJECT	
	SHEET NO.
PAPI LAYOUT PLAN	74 OF 80





SCALE: 1"= 50'



RUNWAY 22 PAPI AIMING
PROFILE

N.T.S.

2
E-14

PAPI AIMING NOTES:

- PAPI AIMING UNIT PRICE TO INCLUDE INITIAL AIMING AT THE PAPI AIMING ANGLE SHOWN.
- 2. PAPI AIMING IS NOT COMPLETE UNTIL APPROVED BY THE OWNER AND FAA, AFTER FAA FLIGHT CHECK.
 - CONTRACTOR SHALL MAKE UP TO 2 ADDITIONAL TRIPS TO THE SITE TO MAKE ADJUSTMENTS TO THE AIMING ANGLE, IF DIRECTED BY THE ENGINEER.
- 4. PAPI AIMING ANGLE AND OBSTACLE CLEARANCE SURFACE ANGLES ARE MEASURED TO HORIZONTAL.

RUNWAY 22 PAPI UNIT AIMING (4 BOX)

LIGHT UNIT	AIMING ANGLE
UNIT NEAREST RUNWAY	3°30'
NEXT ADJACENT UNIT	3°10'
NEXT ADJACENT UNIT	2°50'
NEXT ADJACENT UNIT	2°30'

164 г	PROPOSED RW 4-22 STA 53+78.08 &					
162		LAMP EL = 161.15'				
160		LAIMP_EL = 101.13				
				<u> </u>	PAD ELEVATION = 159.15'	
158	PROPOSED GROUND (TYP)	EXISTING GROUND				

E-14

RUNWAY 22 PAPI CROSS SECTION

STA 53+78.08

SCALE: 1"= 20' HORIZ
1"= 2' VERT

3

E-14





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NO. DATE BY APPR

CENTURY WEST	PO 533 PO
ENGINEERING	503 503
DATE:	DDO

APRIL 2016

PORTLAND OFFICE

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PORTLAND, OR 97239
503.419.2130

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PROJECT NO:
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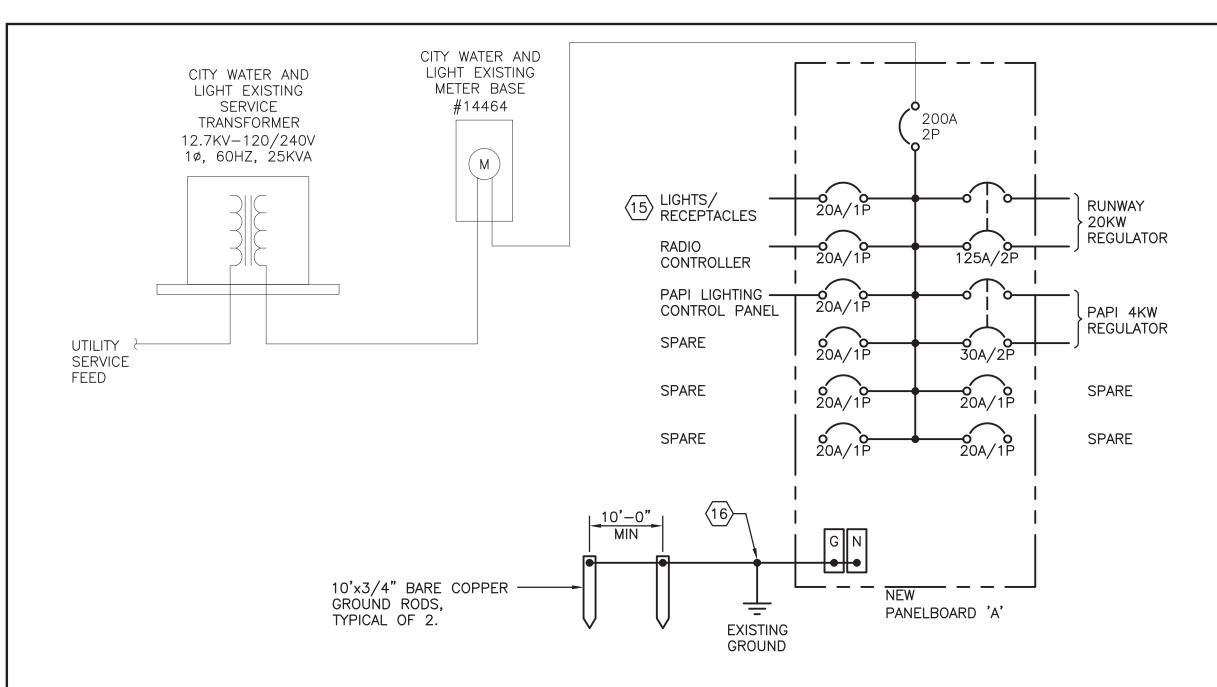
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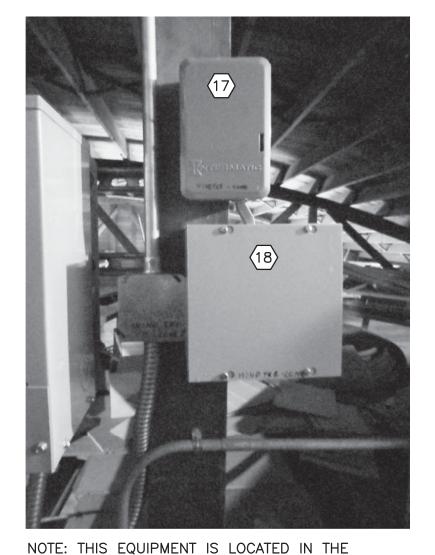
CITY OF MCMINNVILLE
MCMINNVILLE MUNICIPAL AIRPORT
RUNWAY 4-22 REHABILITATION PROJECT

RUNWAY 22 PAPI DETAILS

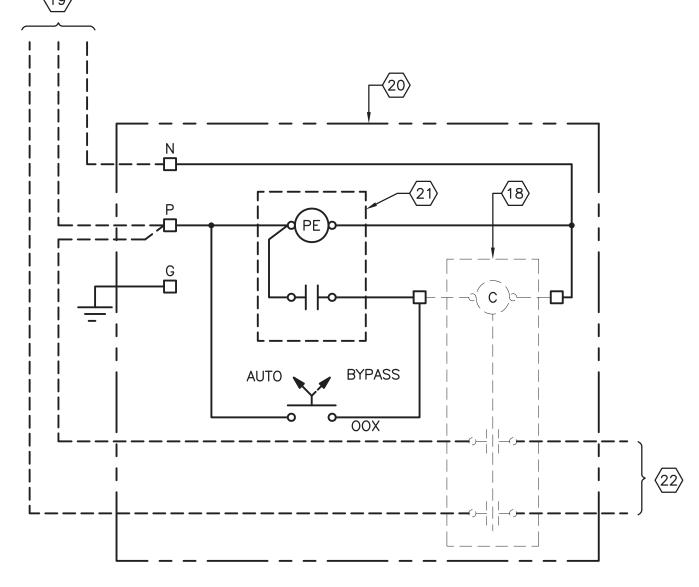
E-14
SHEET NO.

DRAWING NO.





UPSTAIRS HALLWAY OF THE PILOT LOUNGE BUILDING.

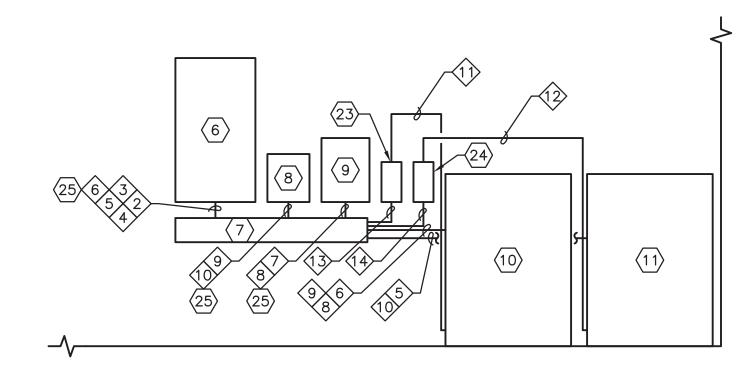




3 WIND CONE AND WIND TEE CONTROL ALTERATION DETAIL 8-15 NOT TO SCALE

		CO	NDUIT & CABLE SCHED	ULE
CKT.	COND.	CONDUCTORS	FROM	ТО
NUMBER	SIZE			
1		RE-USE EXISTING CONDUCTORS	METER BASE	PANELBOARD "A"
2		RE-USE EXISTING CONDUCTORS	PANELBOARD "A"	LIGHTS & RECEPTACLES (EXISTING)
3	1"	(2) #12 AWG, (1) #12 GND	PANELBOARD "A"	NEW RADIO CONTROLLER
4	1"	(2) #12 AWG, (1) #12 GND	PANELBOARD "A"	NEW PAPI LIGHTING CONTROL PANEL
5	1"	(2) #1 AWG & (1) #6 GND	PANELBOARD "A"	NEW RUNWAY 20KW REGULATOR
6	1"	(2) #10 AWG & (1) #12 GND	PANELBOARD "A"	NEW PAPI 4KW REGULATOR
7	1"	(1) #12 AWG & (1) #12 GND	NEW PAPI LIGHTING CONTROL PANEL	NEW RADIO CONTROLLER
8	1"	(4) #12 AWG & (1) #12 GND	NEW PAPI LIGHTING CONTROL PANEL	NEW PAPI 4KW REGULATOR
9	1"	(3) #12 AWG & (1) #12 GND	NEW RADIO CONTROLLER	NEW PAPI 4KW REGULATOR
10	1"	(4) #12 AWG & (1) #12 GND	NEW RADIO CONTROLLER	NEW RUNWAY 20KW REGULATOR
11	2"	#8 AWG, 5KV UNSHIELDED CABLE	NEW PAPI 4KW REGULATOR	NEW PAPI SERIES CIRCUIT CUT-OUT PLUG
12	2"	#8 AWG, 5KV UNSHIELDED CABLE	NEW RUNWAY 20KW REGULATOR	NEW RUNWAY SERIES CIRCUIT CUT-OUT PLUG
13		RE-USE EXISTING 5KV CABLES	NEW PAPI SERIES CIRCUIT CUT-OUT PLUG	NEW PAPI SERIES LOOP CIRCUIT
14		#8 AWG, 5KV UNSHIELDED CABLE	NEW RUNWAY SERIES CIRCUIT CUT-OUT PLUG	NEW RUNWAY SERIES LOOP CIRCUIT
15		RADIO MFR ANTENNA CABLE	NEW RADIO CONTROLLER	NEW RADIO REMOTE ANTENNA
16	3/4"	(3) #12 AWG, (1) #12 GND	NEW PAPI LIGHTING CONTROL PANEL	NEW PAPI CONTROL PHOTOCELL
17	3/4"	(3) #12 AWG & (1) #12 GND	NEW WIND CONE/TEE LIGHTING CONTROL PANEL	NEW WIND CONE/TEE CONTROL PHOTOCELL
18		(2) #4 AWG & (1) #4 GND	EXISTING WIND CONE/TEE BOOST TRANSFORMER	NEW RUNWAY JUNCTION BASE CAN
			(PILOT LOUNGE UPPER HALLWAY)	(NEAR TAXIWAY A, STA 50+05)
19	2"	(2) #4 AWG & (1) #4 GND	NEW RUNWAY JUNCTION BASE CAN	NEW RUNWAY JUNCTION BASE CAN
			(NEAR TAXIWAY A, STA 50+05)	(SOUTH OF RUNWAY, STA 50+85)
20		(2) #4 AWG & (1) #4 GND	NEW RUNWAY JUNCTION BASE CAN	EXISTING WIND CONE/TEE BUCK TRANSFORMER
			(SOUTH OF RUNWAY, STA 50+85)	
21	2"	(2) #12 AWG & (1) #12 GND	EXISTING WIND CONE/TEE BUCK TRANSFORMER	NEW WIND CONE
NOTES:			SECONDARY BRANCH CIRCUIT BASE CAN	

- 1. CONDUIT SIZES MARKED "---" SIGNIFY THAT EXISTING CONDUIT IS TO BE RE-USED, OR THAT NO CONDUIT IS REQUIRED.
- 2. ALL CIRCUITS SHALL BE FIELD COORDINATED.
 3. CURRENT LOOP CIRCUITS ARE ROUTED IN NEW AND EXISTING CONDUIT AS NOTED THROUGHOUT THE ELECTRICAL DRAWINGS.
- 4. MANDREL ALL RE-USED CONDUIT WHERE NEW CONDUCTORS ARE PULLED IMMEDIATELY PRIOR TO INSTALLATION OF NEW CONDUCTORS.



2 HANGAR A RUNWAY LIGHTING ELECTRICAL ROOM - PARTIAL FLOOR PLAN

SCALE: 1/2" = 1'-0"

 $\langle 14 \rangle$



- A. CONTRACTOR SHALL DEMOLISH AND DISPOSE OF ALL EXISTING ELECTRICAL EQUIPMENT IN THE RUNWAY LIGHTING ELECTRICAL ROOM, UNLESS OTHERWISE NOTED. THE CONTRACTOR HAS THE OPTION TO RE-USE THE EXISTING WIRE GUTTER ON THE WEST WALL, OTHERWISE ALL ELECTRICAL RUNWAY LIGHTING EQUIPMENT SHALL BE NEW.
- B. CONTRACTOR SHALL RE-USE EXISTING RACEWAY FROM ELECTRICAL ROOM OUT TO RUNWAY.
- C. CONTRACTOR SHALL ROUTE CIRCUITS THRU WIRE GUTTER WHERE APPLICABLE.

NOTES THIS SHEET

GENERAL NOTES

- (1) EXISTING 25KVA SERVICE TRANSFORMER.
- 2 EXISTING METER BASE.
- 3 NEW RADIO ANTENNA.
- $\langle 4 \rangle$ EXISTING PLYWOOD BACKBOARD.
- (5) NEW PHOTOCELL, MOUNT SO THAT SENSOR FACES NORTH.
- 6 NEW 120/240V, 225A RATED PANEL BOARD.
- (7) EXISTING WIRE DUCT, 6"Hx48"Wx6"D.
- 8 NEW L-854 RADIO CONTROLLER.
- 9 NEW PAPI LIGHTING CONTROL PANEL, SEE SHEET E-16 FOR CONTROL SCHEMATIC.
- NEW 4KW REGULATOR FOR PAPI CURRENT LOOP. CONTROL WIRES FOR CIRCUITS #8 AND #9 CAN BE COMBINED IN SAME CONDUIT FROM WIRE GUTTER TO REGULATOR.
- $\langle 11 \rangle$ NEW 20KW REGULATOR FOR RUNWAY LIGHTING CURRENT LOOP.
- $\langle 12 \rangle$ GROUND ROD, TYPICAL OF 2.
- (13) EXISTING STORAGE SHELVING.
- $\langle 14 \rangle$ EXISTING DESK.
- (15) RECONNECT EXISTING LIGHTING AND RECEPTACLE CIRCUIT TO NEW PANELBOARD.
- (16) BOND EXISTING SERVICE GROUND TO NEW SERVICE GROUND CONDUCTOR.
- EXISTING WIND CONE/TEE TIME CLOCK. CONTRACTOR SHALL SALVAGE TIME CLOCK AND RETURN TO OWNER. PROVIDE NEW 10"Hx10"Wx4"D NEMA 1 ENCLOSURE WITH PHOTOCELL BYPASS SWITCH FOR NEW PHOTOCELL CONTROL SHOWN IN DETAIL 3, THIS SHEET..
- (18) EXISTING WIND CONE/TEE LIGHTING CONTACTOR.
- EXISTING 120/240V WIND CONE/TEE BRANCH CIRCUIT CONDUCTORS.
 CONTRACTOR SHALL FIELD VERIFY CONDUCTOR INTEGRITY AND PROVIDE NEW CONDUCTORS IF NECESSARY.
- NEW NEMA 1 WIND CONE/TEE LIGHTING CONTROL ENCLOSURE. LOCATE NEW ENCLOSURE ABOVE EXISTING LIGHTING CONTACTOR ENCLOSURE.
- (21) NEW WIND CONE/TEE PHOTOCELL. CONTRACTOR SHALL PROVIDE #12 AWG CONDUCTOR AND 3/4" CONDUIT FROM LIGHTING CONTROL ENCLOSURE TO PHOTOCELL. THIS CIRCUIT IS REFERRED TO AS CIRCUIT #17 ON THE CONDUIT AND CABLE SCHEDULE. FIELD COORDINATE CONDUIT ROUTING. PHOTOCELL SHALL BE LOCATED ON EXTERIOR NORTHEAST WALL OF PILOT LOUNGE BUILDING. PHOTOCELL SHALL BE MOUNTED SO THAT PHOTO SENSOR FACES NORTH.
- EXISTING WIRING TO EXISTING 120/240V-480V WIND CONE/TEE BOOST TRANSFORMER.
- (23) NEW PAPI SERIES CURRENT LOOP CUTOUT PLUG.
- (24) NEW RUNWAY LIGHTING SERIES CURRENT LOOP CUTOUT PLUG.
- COMBINE INDICATED CIRCUITS IN SINGLE 2" CONDUIT BETWEEN EQUIPMENT LOCATED DIRECTLY ABOVE WIRE DUCT AND WIRE DUCT. USE CONDUIT SIZES IDENTIFIED IN THE CONDUIT & CABLE SCHEDULE FROM WIRE DUCT TO INDIVIDUAL DEVICES.

9615 S.W. Allen Boulevard Suite 107
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E-mail: rweng@rweng.com
Project No.: 132.056.001 Contact: SAM RUSSUM



(13)



(13)

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	CENTURY WEST ENGINEERING	PORTLAND OF 5331 SW MACA PORTLAND, OF 503.419.2130 503.639.2710 F/
l	DATE:	PROJECT NO:

MARCH 2016

PORTLAND OFFICE
5331 SW MACADAM AVE., #207
PORTLAND, OR 97239
503.419.2130
503.639.2710 FAX

PROJECT NO:
40228.008.03

DESIGNED BY:
SMR

DRAWN BY:
CHECKED BY:
JLH

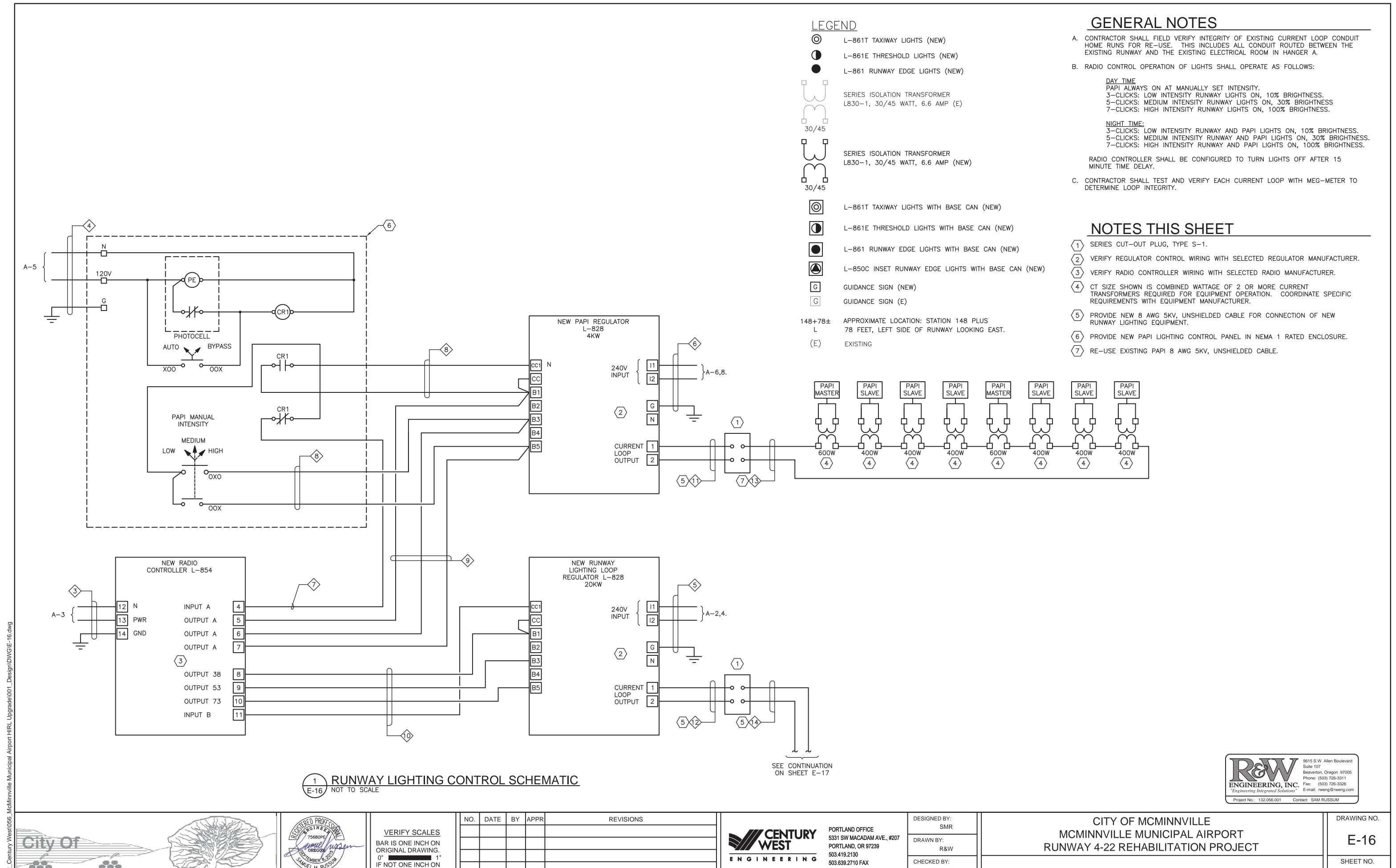
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CITY OF MCMINNVILLE MCMINNVILLE MUNICIPAL AIRPORT RUNWAY 4-22 REHABILITATION PROJECT

ELECTRICAL ONE-LINE DIAGRAM AND ELECTRICAL ROOM LAYOUT

E-15
SHEET NO.

DRAWING NO.



DATE:

MARCH 2016

PROJECT NO:

40228.008.03

SCALE:

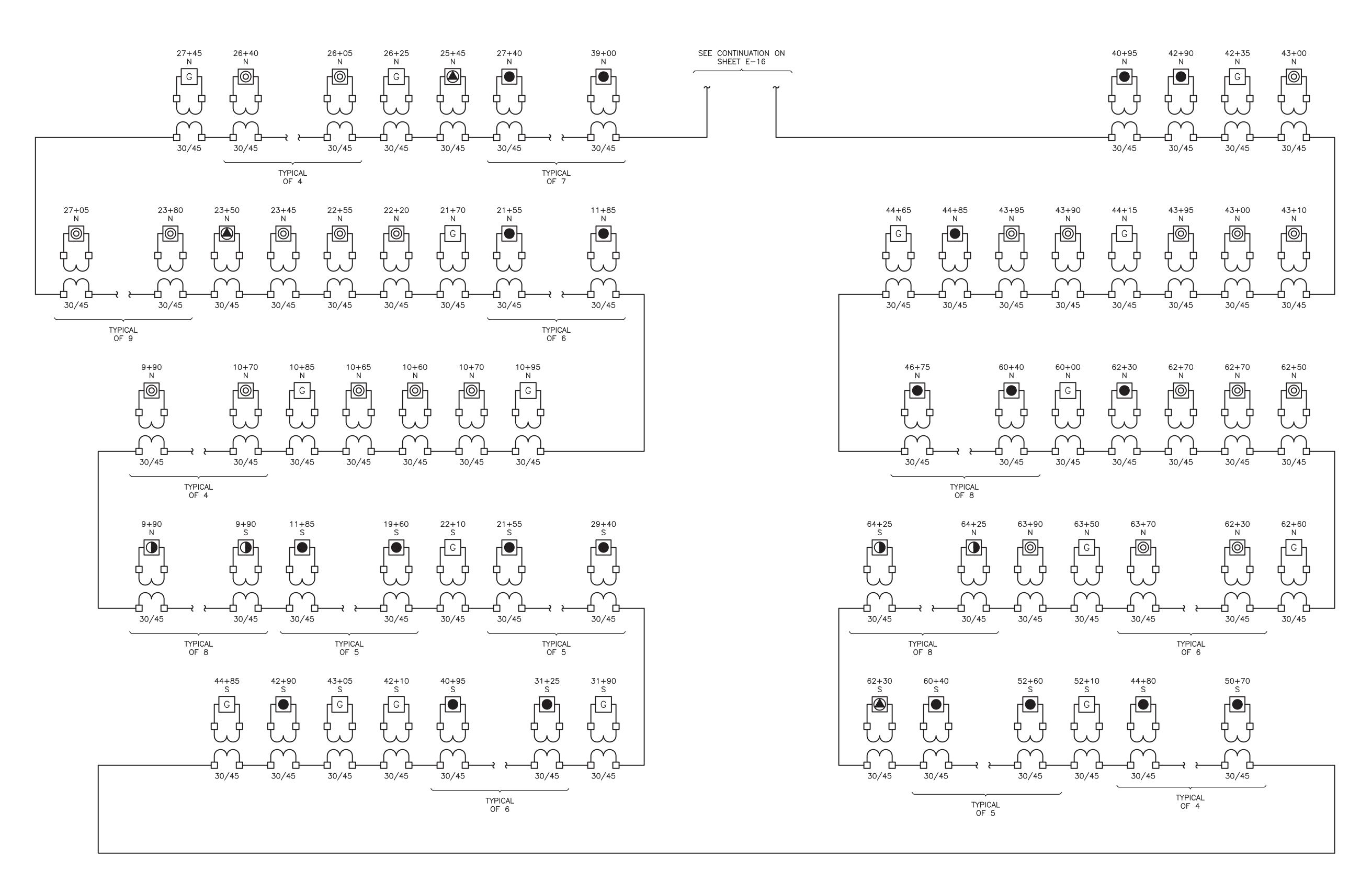
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| 78 OF 80

RUNWAY LIGHTING CONTROL

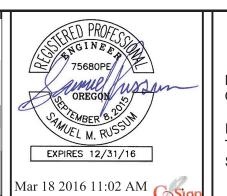
LOOP DIAGRAM











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	CENTURY WEST	PORTLAND, OR 97239 503.419.2130
1	DATE:	PROJECT NO:

MARCH 2016

ORTLAND OFFICE	DESIGNED BY: SMR	
331 SW MACADAM AVE., #207 ORTLAND, OR 97239 03.419.2130	DRAWN BY: R&W	
03.639.2710 FAX	CHECKED BY: JLH	
DJECT NO:	SCALE:	

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40228.008.03

CITY OF MCMINNVILLE MCMINNVILLE MUNICIPAL AIRPORT RUNWAY 4-22 REHABILITATION PROJECT

RUNWAY LIGHTING LOOP DIAGRAM

E-17

5HEET NO. 79 OF 80

